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AN ATTRIBUTIONAL ANALYSIS OF THE EFFECTS OF TARGET
STATUS AND PRESENCE OF ULTERIOR MOTIVES ON
CHILDREN'S JUDGMENTS OF TWO TYPES
OF INGRATIATING BEHAVIORS

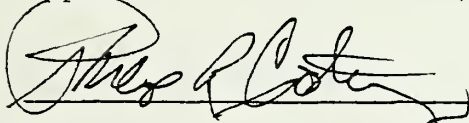
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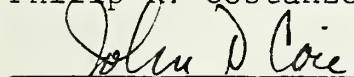
Department of Psychology
Duke University

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Approved:



Philip R. Costanzo, Ph.D., Supervisor









Dissertation submitted in partial fulfillment of
the requirements for the degree of Doctor of
Philosophy in the Department of Psychology
in the Graduate School of
Duke University

1978

ABSTRACT
(Psychology)

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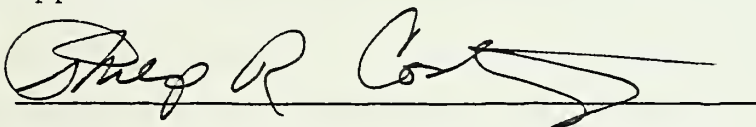
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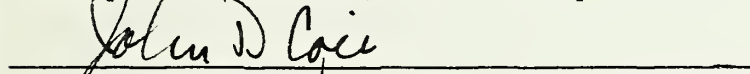
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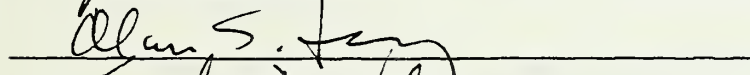
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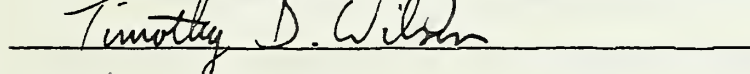
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ABSTRACT

The study examined children's evaluations and attributions in response to ingratiating acts directed at different targets in the presence or absence of an ulterior motive. According to an attributional analysis of ingratiation (Jones & McGillis, 1976; Jones & Wortman, 1973), attributions of enduring behavioral dispositions to ingratiators and evaluation of these ingratiators should vary as a function of presence or absence of ulterior motives and as a function of target status, because very high status targets are likely to control desirable benefits even when these are not made explicit. Ingratiators with ulterior motives and those who ingratiate high status targets should be evaluated less positively, and they should be seen as less likely to repeat their "nice" acts in other situations or to other targets.

These idealized predictions rest on the assumption of differential perception and evaluation of ingratiators' motives under different circumstances. Children's ability to use motives in making moral evaluations of others has long been a subject of debate.

However, few researchers have asked children about the dispositional implications of their moral evaluations. The present study was thus intended to examine children's evaluations and attributions in response to a morally relevant behavior (ingratiation) somewhat different from the behaviors most studies have investigated. It was expected that age-related changes in evaluation of strategic behaviors and changes in patterns of attribution would reflect a shift away from reliance on adult rules in judging acts and a corresponding increase in reliance on peer group norms.

Male and female first, third, and fifth graders and an adult control group heard four stories about children who opinion conformed or did favors. The target of the acts was either a disliked (low status) peer, a well-liked (high status) peer, or an adult (the ingratiator's teacher). Each act either occurred with no explicit ulterior motive, or it occurred after the ingratiator learned that the target controlled a benefit that the ingratiator very much desired, so that an ulterior motive was prominent. Subjects used rating scales to evaluate the ingratiators, to estimate the probability that they would repeat their acts, and to rate the effectiveness of the ingratiation. Subjects' were also asked for free response explanations of the ingratiators' behaviors, and they explained what they would do if they wanted to get a desirable benefit from one of the story targets.

Favor doing was regarded far more positively than opinion conforming, and evaluation of ingratiation declined steadily

with age. First graders tended to see all ingratiation as quite positive, likely to generalize, and likely to be effective. First graders were able to explain strategic favor-doing, but they had difficulty with opinion conformity.

Among the other groups, motive became increasingly important with age as a determinant of both evaluations and predicted repetition of the act. Motive effects were not always in the expected direction, however. Ulterior motive opinion conformity to an adult was evaluated more positively than no ulterior motive opinion conformity, indicating that ingratiation of this target was less deplorable if the ingratiator was strongly tempted. Third graders in particular showed signs of regarding opinion conformity to an adult in a fairly favorable light. They thought an adult would be relatively likely to pick an opinion conformer to receive a desirable benefit, whereas the other age groups saw favor-doing as much more effective with an adult target. When asked how they themselves would try to influence a target, younger subjects often mentioned providing physical benefits while adults were more likely to suggest a straightforward request.

The patterns of main effects seen on the measures pertaining to predictions of future behavior appeared to strongly resemble the one predicted by an attributional analysis of ingratiation. Children seemed more sensitive than adults to the power of the very high status adult target to elicit ingratiating acts. Patterns of attribution among third graders sometimes appeared more adult-like than those appearing among

fifth graders. This paradoxical finding and third graders' relatively favorable responses to adult oriented opinion conformers are discussed in terms of third graders' greater tendency to judge behavior in line with adult rules, while fifth graders may be more sensitive to peer groups norms.

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ACKNOWLEDGMENTS

I would like to thank my chairman, Dr. Philip Costanzo, for his aid and encouragement throughout this project. Thanks are also due to the members of my committee, past and present: Drs. David Aderman, William Hall, E. E. Jones, Alan Levy, Timothy Wilson, and especially John Coie. Also, I am very grateful to Mrs. Patricia Russell for typing the final copy of the manuscript.

The whole undertaking would never have gotten off the ground if Dr. Pat Piper-Smyer had not put me in touch with Dr. Mike Robinson, Pupil-Personnel Services Director for the Alamance County Public Schools. Dr. Robinson obtained permission for me to run the study in Alamance County and introduced me to Mrs. Wilma Parrish, principal of the Altamahaw-Ossipee Elementary School, who kindly allowed me to run the study in her school and who provided me with space to interview subjects.

Between Dr. Robinson and Mrs. Parrish, I was able to obtain a near ideal situation in which to conduct the study, and my appreciation to them is immense. I would also like to acknowledge the patience of the long-suffering teachers at Altamahaw-Ossipee who endured frequent interruptions of their classrooms as I extracted students for interviews.

On a more personal level, I would like to express my profound gratitude to my parents and my grandparents for their unwavering, if sometimes impatient, faith that I would make it through this ordeal and for their financial assistance, without which it would have been a lot more painful. And finally, I owe my sanity to Dr. Allen Humphrey, without whom nothing would matter much anyway.

-j.a.m.

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CHAPTER I

INTRODUCTION

Overview

The study reported in the present paper has two purposes, one broad, one narrow. The broad purpose is to improve our understanding of children's use of situational cues that may be relevant to a correct (adult-like) interpretation of the intentions and motivations that underlie others' behavior and to discover how perception of intent may relate to perceptions of an actor's behavioral dispositions. The narrow purpose is to examine, among children aged six to ten years, understanding of two types of strategic, ingratiating behaviors: doing favors and opinion conforming. Both these behaviors can sometimes be used illicitly to convince a target that we are nice or that we hold similar beliefs or that we like this target when in fact we are mostly interested in obtaining from the target benefits that he or she controls.

Ingratiating acts are very useful for studying children's responses to different types of situational cues since

there are two key cues that should alert an observer to the possibility that an act is ingratiating. One cue is the presence of some outcome known to be controlled by the target and desired by the ingratiator. The other cue is the status of the target involved. If the target of an apparently nice or agreeable act is of very high status or power, this implies the presence of many desirable outcomes that are under the target's control. When these cues to the presence of an "ulterior motive" coincide with the appearance of a nice or agreeable act, adult observers are likely to see the actor in a less positive light and to make different predictions of this actor's future behavior than would be the case were no ulterior motive apparent. A person who is nice or agreeable because of an intrinsic disposition to be nice or agreeable is likely to continue to behave in nice or agreeable ways. A person who is nice or agreeable because of a desire to get rewards may cease to emit nice, agreeable behaviors once the rewards are obtained. Thus, by varying the circumstances surrounding a nice or agreeable act and asking children to explain why this act was performed, to evaluate the actor, and to guess about the actor's future behavior, we should be able to expand our understanding of children's use of situational cues to infer ulterior motives. In addition, we should be able to discover the relationship between perception of ulterior motives, evaluation of the actor, and inferences drawn about the actor's behavioral dispositions.

The present study has no direct antecedents in the literature since there is no literature on children's understanding

of strategic behaviors per se. There is, however, an abundant literature on children's understanding of intention and motivation, all of it inspired by the cognitive developmental theory of Jean Piaget (e.g., Piaget & Inhelder, 1969). Piaget holds that young children (up to about age seven) are largely "egocentric" in their cognitive, social, and moral interpretations of the world around them. "Egocentric" children are presumed to lack awareness of the possibility of validly different ways of interpreting visible reality, where visible reality includes the actions and appearances of others as well as the static and dynamic properties of the physical environment. Piaget's theory indicates that, because of this lack of awareness, it naturally does not occur to younger children to consider invisible internal attributes of others, such as intentions and motivations, when evaluating these others' actions. Instead, children in the early stages of cognitive development are said to rely on rules they have learned from adults and to judge behavior by its outward appearances only in accordance with these rules, which are regarded as absolute and immutable.

Eventually, Piaget's theory holds, children begin to emerge from egocentricity and to acquire an awareness of the internal states of others and the importance of these internal states for understanding and evaluating others' behavior. This is expected to happen between the ages of about eight and about twelve, during which time children learn, primarily through interactions with peers, that others' perspectives on reality may differ from one's own and that rules, rather than being

unchanging standards fixed by authority, are often developed and maintained through mutual agreement among the persons to whom the rules apply. Thus, according to Piaget, children's initial reliance on outward appearances as the basis for judging behavior comes into conflict with new information present in the peer group environment. Through this conflict children's old moral concepts are modified and mature moral reasoning eventually evolves.

This account of the development of children's appreciation of the internal states of others was proposed by Piaget as early as the 1920's and was supported in his classic works on children's moral judgments (Piaget, 1965), their understanding of changes in visual perspective (Piaget & Inhelder, 1956), and their ability to communicate verbally (Piaget, 1955). Research by other investigators also obtained results congruent with Piaget's theoretical statements (e.g., Flavell et al., 1968; see also Hoffman, 1970, for a summary of moral judgment studies in the Piagetian mode). These studies and others made it appear that younger children certainly neglected intentions when they evaluated behavior, and in some cases, the studies suggested that younger children might lack awareness of the very existence of intentions.

If Piaget's portrait of young children's cognitive competence were inarguably correct, it might be rather trivial to ask children under seven to evaluate ingratiating acts since we would obviously expect that they would fail to recognize the morally dubious element in these outwardly good behaviors.

However, it has recently become apparent that the kinds of results typically used to support Piaget's conception of children's appreciation of intentions and motivations may be peculiar to certain kinds of experimental tasks. When somewhat different experimental paradigms are used, different patterns of results are obtained. This discovery has precipitated a flurry of studies on children's perceptions of intent in moral judgment and other situations. The picture emerging from the results of these studies is not always a clear one, but it now appears that under some circumstances, even very young children can use intentions and motivations in their judgments of others' behavior, while under other circumstances intentions and motivations seem to be ignored. Thus, a whole set of new questions about children's understanding of intentions and motivations becomes appropriate. Why should children attend to information about intentions under some circumstances and not under others? If they do not invariably neglect intention due to their immature level of cognitive functioning, is it possible that they simply learn to use intention in some situations before they use it in others?

What does intention mean to children of different ages? What does it imply about the person who has the intention? What other kinds of information about behavior are children able or unable to use in judging others or in interpreting their acts? What kinds of information should they use, for that matter?

In order both to formulate and to answer questions of the latter variety, we obviously need a theory better suited than Piaget's for the close examination of person perception in particular rather than cognitive functioning in general. One fruitful source of theoretical ideas and research strategies has been attribution theory, propounded in slightly different guises by Fritz Heider (1944, 1958), Harold Kelley (1967, 1971, 1972, 1973), and E. E. Jones and colleagues (Jones & Davis, 1965; Jones & McGillis, 1976). All three of these variants of attribution theory provide logical analyses of the kinds of information people are thought to need to make inferences about the causes of other people's behavior. Of the three variants, Kelley's "analysis of variance" model and Jones's "correspondent inference theory" lend themselves most aptly to the derivation of clear predictions about the kinds of conclusions people "ought" to draw from different kinds of information about other people's behavior and the situations in which this behavior occurs. Though real attributors are not necessarily as logical in their inferences as the idealized attributors these theories hypothesize, such idealizations have served as useful heuristics for investigation of actual attributions in both adults and children (e.g., Baldwin & Baldwin, 1970; Costanzo, Grumet, & Brehm, 1974; Jones & Harris, 1967; McArthur, 1972; Shultz & Butkowsky, 1977). The study of ingratiating behavior reported in the present paper was also designed using attributional concepts to construct heuristic predictions against which actual results could be measured.

In order to set the stage for this study, the introduction proceeds in three main parts. The first part is a rather extensive presentation of the historical background from which this study emerges, starting with Piaget's original discovery of and explanation for children's neglect of intent in moral judgment situations. There are a number of problems both with Piaget's theoretical approach and with his experimental investigations, and these are presented at some length since most subsequent research efforts have been attempts to resolve one or more of them. These subsequent research efforts themselves are reviewed in compulsive detail, the aim being to produce order from chaos and to show how it has become interesting to ask the questions addressed in the present study, which is both an outgrowth of and a departure from the bulk of the research that is reviewed.

The second part of the introduction is a brief outline of attribution theory and a review of two developmental studies that demonstrate the usefulness of this framework for formulating research designs. The same two studies show age-related changes in children's attributions that may reflect changes in the social milieu surrounding children of different ages. Such age-linked changes in socialization context may help explain why children use intent under some circumstances and not others. Finally, the third part of the introduction explains the methodology used in the present study, the heuristic, attribution theory-based predictions that guided its design, and some hypotheses about changes with age in children's responses to ingrating behaviors performed under different circumstances.

Historical Background

The Piagetian Approach

Piaget's Theory: Piaget sees development as progressing in orderly stages, each stage being characterized by a particular level of cognitive functioning that affects children's behavior over a broad range of intellectual activities. During each stage children are presented with certain central "problems" that must be resolved before cognitive development can proceed. For instance, during the first stage of cognitive development--the sensorimotor period, lasting from birth to about eighteen months--the central "problem" children face is to differentiate themselves from the physical environment. Thus, according to Piaget, the infant starts from an initial state in which awareness of an object's existence lasts only as long as the object is physically present and is thus "part" of the child in that it is stimulating sensory receptors. With increasing experience, the infant progresses to some preverbal awareness of the independent existence of objects and to a primitive conception of the self as an object among other objects existing in space.

The end of the sensorimotor period is marked by the emergence of the "semiotic" or symbolic function, which allows children to represent to themselves objects or actions that are not physically present. This new ability is manifested by the appearance of such phenomena as speech, delayed imitation, and symbolic (imaginative) play. With this advance, the child moves

to the "preoperatory level" of cognitive functioning, which presents a new "problem" for solution. The differentiation of self from environment, already completed at the physical level, must now be achieved at the representational level before the child can move on to develop "concrete" and later "formal" operations, terms Piaget uses to refer to stages in the development of logical thinking about the workings of the universe. "Concrete operations" are developed between the ages of about seven and about eleven, "formal operations" appear thereafter. Each of these stages is characterized by its particular style of approach to logical problems.

As part of the process of differentiating self from environment at the representational level, children at the pre-operational level of thought must evolve out of their tendency to "center" inappropriately on invariant rules for judging physical relationships and social occurrences. Such centering supposedly leads preoperational children to assume egocentrically that all persons perceive things as they, themselves, perceive things. Thus, for instance, a preoperational child might "center" on the height of a column of liquid as the measure of the liquid's quantity and ignore the column's width. With the achievement of concrete operations, the child has learned that the height of the column must be considered in relation to its width if the quantity of liquid is to be correctly estimated. Or, as mentioned earlier, the preoperational child might "center" on the outward appearances of an action in judging the action's morality, but the concrete operational child has learned that

outward appearances must be considered in relation to motivations before a moral judgment can be made. However, the logic of the concrete operational child is still largely limited to real, present occurrences. Only with the advent of formal operations is the ability to use formal, propositional logic and to deal with abstract and hypothetical concepts finally developed.

Piaget's Analogy Between Social Understanding and Cognitive Functioning: The brief outline of Piaget's theory that we have just presented hardly does justice to the complexity and, indeed, the elegance of the Piagetian approach. However, what concerns us in the present paper is as much the spirit as the specifics of Piaget's developmental system. The aspect of Piaget's thinking particularly emphasized here is his insistence on the all-pervasive nature of the levels of cognitive functioning that he sees existing at various points in development. The effect of this insistence on Piaget's thinking about purely social functioning is apparent in the following quotations:

the decentering which is a prerequisite for the formation of the operations applies not only to a physical universe...but also necessarily to an interpersonal or social universe. (Piaget & Inhelder, 1969, p. 95)

Since it is widely accepted that cognitive and affective or social development are inseparable and parallel, the surest course is to turn to studies of intellectual attitudes....Generally speaking, the fundamental difference between the preoperatory and operatory levels is that at the preoperatory level assimilation to the child's own action prevails, whereas the operatory level is dominated by assimilation to the general coordinations of actions, and therefore to the operations.

Thus, we see from the outset the possible analogy with the phases of the process of socialization. The general coordination of actions includes interpersonal as well as intrapersonal actions. It is meaningless, therefore, to wonder whether it is the cognitive cooperation (or cooperations) which engender the individual operations or the other way around. It is at the stage of concrete operations that new interpersonal relations of a cooperative nature are established, and there is no reason why these should be limited to cognitive exchanges.

It is highly probable, then, that the social exchanges of the preoperatory level are precooperative; that is, at once social from the point of view of the subject and centered upon the child and his own activity from the point of view of the observer. This is precisely what one of meant by "infantile egocentrism" (Op. cit., pp. 117-118).

As these passages reveal, Piaget is emphatic in asserting that children's functioning in both the cognitive realm (understanding physical reality) and the social realm (understanding relationships and interactions with other people) is dependent on levels of cognitive development. He argues that it is therefore appropriate to "turn to studies of intellectual attitudes" and hence to "see the analogy" between the process of intellectual development and the process of socialization. This point is stressed here because the extension "by analogy" of Piaget's concepts from cognitive to social functioning has very much influenced the kinds of research that have been done to demonstrate the applicability of Piaget's system to social processes. Perhaps more importantly, the strategy of dealing with social processes "by analogy" has definitely influenced the interpretation of the results that research has produced. This should become increasingly apparent as we briefly cover the support mustered by Piaget and others to justify the analogy's validity.

Findings supporting Piaget's theory: Piaget and

Inhelder (1969), in their summary account of Piaget's theory, mention two types of evidence that preoperatory children's fundamental egocentricity affects their interpretations of social phenomena. One type of evidence is derived from children's responses to questions about moral strictures and violations thereof (Piaget, 1965). The other type of evidence is derived from children's use of language, particularly in tasks where they are called on to describe or explain something to another person who has little or no access to information about this something (Piaget, 1955). Other authors, most notably Flavell (1966, 1974, 1977; Flavell, Botkin, Fry, Wright & Jarvis, 1968), have also used as evidence of social egocentricity children's performance on visual perspective-taking tasks (Piaget & Inhelder, 1956). Such tasks test a subject's ability to correctly anticipate the changes in the appearance of an array of physical objects when the array is viewed from different angles. In addition, the Flavell group (Flavell et al., 1968) introduced other kinds of tasks, such as playing games where another's strategy must be taken into account and telling stories "from another's point of view." All these tasks--verbal communication, visual perspective-taking, strategy games, and other's perspective stories--are generally referred to as "role-taking tasks," though this term takes for granted much that is debatable about the kinds of skills these tasks require.

These "role-taking" tasks and the ability to explicate moral judgments are all thought by cognitive developmental

theorists to tap an underlying conceptual ability to "take the role" of another person in order to assess the other's intentions so as to make a moral evaluation, or to assess the other's lack of information so as to communicate well, or to interpret the other's point of view on a visual display, etc. Thus, the theorists reason that preoperatory children, whose egocentrism makes them unaware of the existence of others' points of view, should perform very poorly on these "role-taking" tasks. And, indeed, Piaget and others have found among younger children what appear to be very inappropriate, "egocentric" responses in visual perspective-taking, in communications, and in moral judgment situations.

In the case of visual perspective taking tasks, Piaget and Inhelder (1956) showed children a visual display consisting of three papier mâché mountains and asked them to choose from among several photographs the one that showed how the mountains looked to a person (actually, to a doll) who had a different vantage point from that of the subjects. The finding reported was that the youngest children tested (ages four to six) failed to "take the perspective of the other" and indicated that the doll saw the same view of the mountains that they themselves did. With regard to communication tasks, Piaget (1955) described the workings of a water faucet to six- and seven-year-old children and then asked them to explain the faucet to another child. Although the children themselves could answer questions about the functioning of the faucet, indicating that they did understand, they failed miserably when it came to explaining

the faucet's mechanism to someone else. Finally, in assessing children's moral judgment skills, Piaget (1965) asked children to compare two moral transgression stories. For instance, in one type of story pair, one child accidentally caused slight damage to some object or objects while engaged in a selfish or disobedient act while another child accidentally caused severe damage to some object or objects while engaged in an innocent or virtuous act (e.g., in one of Piaget's pairs, one child broke a single cup while stealing jam from a cupboard and another child broke fifteen cups on a tray behind a door while hurrying to be on time for dinner). In this case, younger children (six and seven year olds) tended to judge as naughtiest the story-child who had produced the most damage, while older children (nine and ten) tended instead to judge naughtiness on the basis of the intentional act in which the story-child was engaged when the damage accidentally occurred.

Dual Explanation of Moral Performance of Younger Children:

While all three of these findings were taken by Piaget to demonstrate the fundamental egocentrism of the child, in the case of moral judgment, Piaget provided a second, parallel explanation for younger children's apparent inclination to judge actions on the basis of consequences without regard to whether these consequences were or were not intended. This is the "moral heteronomy" of younger children, their reliance upon adult authority as the basis for moral rules and their almost superstitious belief that these rules must be followed to the letter lest "imminent justice," punishment from some omnipotent, omniscient source, befall the rule-breaker. This attitude toward rules is

promulgated by the nature of children's relationships with adults, relationships in which the adults often do act as all-knowing repositories of moral regulations that are applied to children without explanation. Thus, Piaget believed, it was only after children began to spend extended periods of time with peers that they came to learn, through cooperative exchanges with these peers, that rules are often based in reason and that they can be adjusted by mutual agreement among the persons to whom they apply so that they fulfill the mutual requirements of these persons. As mentioned earlier, in addition to moving young children from moral heteronomy toward a more internalized moral code (moral autonomy, as Piaget termed it), these cooperative interchanges with peers during middle childhood are also seen as instrumental in providing the impetus for children to mature beyond their earlier egocentrism. Thus, in Piaget's view, age-related changes in children's social relationships are doubly crucial to the development of the ability to make appropriate judgments of others' behavior.

Problems with Piaget: Empirical Contradictions and Conceptual Difficulties

Questioning Piaget's Theory: There are two major questions to be addressed here as we attempt to assess the adequacy of Piaget's theory to explain and to predict children's judgments of others' behavior. The first question is: Is Piaget justified in extending "by analogy" his explanations of children's performance on purely cognitive tasks to cover their

performance on more social tasks as well? Or, putting this question differently, are cognitive developmental theorists correct in relating the several different types of "role-taking" tasks mentioned above to a common underlying intellectual ability? The second question is: To what extent is Piaget's portrait of young children's cognitive competence a correct one? We will address these questions in order and in so doing discover that there are a number of difficulties with Piaget's treatment of socially relevant cognition.

The Validity of Piaget's Analogy: What evidence is there that visual perspective-taking, communication skills, and the other so-called "role-taking" tasks tap the same underlying conceptual ability upon which correct application of information about intentions and motives is based? To answer such a question, it would be appropriate to examine studies in which some index of children's ability to understand intentions and motives is correlated with other indices of cognitive development thought to measure the same conceptual skills. Unfortunately, to the best of the present author's knowledge, there are no such studies in print (with the exception of a brief report by Ambron & Irwin, 1975). There are a number of studies available that examine correlations between various indices of cognitive development, some involving measures of moral development, but as far as this author is able to discover, none of these studies has used a moral judgment task that involved simple recognition and use of intention or motivation in evaluating behavior. Most investigators have employed Kohlberg's

(1963, 1969) moral development tasks rather than Piaget's, Kohlberg's "moral dilemmas" being more suitable than Piaget's for older children, who are presumably beyond the stage where mere recognition of intention is a problem for them. The absence of studies correlating simple use of intention or motivation in judging behavior with other presumably related skills makes assessment of Piaget's analogy troublesome; however, a number of studies correlating other indices of social-cognitive skills have been done and a brief look at the picture obtained from these is in order.

Shantz (1975) reviews several correlational studies (most of them unpublished) in which moral judgment was not one of the "role-taking" behaviors investigated and concludes that "...there is, at best, only a moderate relationship among various role-taking skills" (p. 300). Though a few of the studies covered by Shantz did find low, but significant, correlations among role-taking measures, Shantz points out that such low intercorrelations may be statistical artifacts due to such factors as the reliability of each task, the range of scores, the difficulty level of the tasks, and possible shared method variance (e.g., the degree to which each task requires verbal skills).

Examination of studies that do attempt to correlate moral judgment abilities with other cognitive skills likewise yields a cloudy picture. Most (published) studies do find positive correlations between some index of moral judgment proficiency and at least one other index of cognitive development; but the age of the subjects, the nature of the moral

judgment tasks, the type of cognitive task with which moral judgment is correlated, and the adequacy of the controls for such factors as verbal ability vary greatly from study to study (Damon, 1975; Lee, 1971; Moir, 1974; Rubin & Schneider, 1973; Selman, 1971; Tomlinson-Keasy & Keasy, 1974). In those studies where verbal ability was explicitly controlled, it was found that verbal intelligence did correlate with both moral judgment level and level of sophistication on other cognitive tasks (Moir, 1974; Rubin & Schneider, 1973). Though these authors partial verbal ability out of their correlation between moral judgments and other cognitive skills and still find significant relationships, we can point out, with Shantz (1975), that when cognitive abilities that are thought to tap the same underlying conceptual skills correlate as highly with abilities not thought to tap those skills as with other abilities thought to tap those skills, then there is reason to doubt that the "significant" correlations indeed reflect special relationships among the supposedly related abilities. Along these lines let us add that, while the researchers mentioned above do partial verbal ability out of the relationship between moral judgment level and other cognitive skills, they do not partial other cognitive skills out of the relationship between moral judgment level and verbal ability. If the partial correlation between the latter two factors is as high as the partial correlations among moral judgment level and specific cognitive skills, then we have cause to wonder about the meaningfulness of the latter correlations.

Suffice it to say that, given the unclarity of the findings with regard to the relationships among social-cognitive skills, one hesitates to rely as confidently as Piaget does on the analogy between children's understanding of visual perspective, their ability to communicate well, and their ability to correctly employ information about the intentions and motivations of others. The validity of the analogy has not been disproved--that, of course, is essentially impossible--but neither has the analogy's strength been substantiated. This being the case, it seems appropriate to conclude that, if one wishes to know about children's understanding of information about others' intentions and motivations, then one should study this understanding directly rather than looking at understanding of spatial relationships or ability to speak extempore.

The Accuracy of Piaget's Portrait of Young Children's Cognitive Competence: In the foregoing paragraphs we have tried to argue that it is not appropriate to study socially relevant cognition in children "by analogy" with children's performance on cognitive tasks that are unrelated to social perceptions. However, as we have seen, the available evidence is not really sufficient to allow a confident decision about the validity of Piaget's analogy. We can be more confident in responding to the second question posed above, that concerning the accuracy of Piaget's portrait of the young child's level of cognitive functioning. Recent research has demonstrated fairly conclusively that Piaget's "role-taking" experiments did not give "preoperatory" children enough credit. As Shantz (1975) concludes after a review of the literature much broader than that

presented here, "The view of the preschool child as profoundly egocentric has given way to a rather different view: the preschooler has emerged as much more competent in his social understanding" (p. 311). This altered view of the preschooler, we might add, necessitates a re-evaluation of the changes that occur as the younger child develops into middle childhood and beyond.

Research contributing to the reappraisal of younger children's "role-taking" ability has come from a number of quarters, most notably, from investigations of children's ability to understand changes in visual perspective and from studies of children's appreciation of the intentions and motives present in moral judgment situations. With regard to visual perspective taking, there is now ample evidence that even quite young children can understand changes in visual perspective when such changes are very simple (e.g., Borke, 1975; Masangkay et al., 1974; Shantz & Watson, 1970). Also, careful analyses of the kinds of errors that children make on visual perspective-taking tasks (e.g., Coie, Costanzo & Farnill, 1973; Hoy, 1974) indicate that simple egocentrism is an insufficient explanation for the kinds of mistakes observed in this situation. Instead, children's performance seems to be determined by a whole complex of factors from the obviously necessary ability to mentally transpose objects in order to reconstruct correctly their appearance from various angles (Coie et al., 1973) to more subtle considerations such as the type of response used by the experimenter to assess perspective-taking (Hoy, 1974; Shantz & Watson,

1970) and the way questions are put to the child (Masangkay et al., 1974).

Though these recent findings on visual perspective-taking tasks do indicate that children may have somewhat more sophisticated skills than Piaget had originally supposed, we have pointed out that the relationship between visual perspective-taking tasks and understanding information about intentions and motivations is a tenuous one. The more relevant line of revisionary research is that emerging from Piaget's moral judgment work, and we will review this literature at some length. However, before launching into a discussion of findings that have modified Piaget's formulation, we should note that, when Piaget's original good intent/severe consequence, bad intent/mild consequence paradigm is used, Piaget's findings turn out to be quite impressively replicable (e.g., Armsby, 1971; Bandura & McDonald, 1963; Berg-Cross, 1975; Buchanan & Thompson, 1973; Cowan, Langer, Heavenrich, & Nathanson, 1969; Elkind & Dabek, 1977; Keasey, 1977). Thus, there is no doubt of the robustness of Piaget's findings that younger children judged the good intent/severe consequence actor as the naughtiest of the two. The problem is that Piaget's paradigm is insufficient to demonstrate that younger children absolutely do not take intentions into account when judging others' actions. In fact, in choosing story pairs in which an innocent or good intention is associated with a large rule transgression and a selfish or malicious intention is associated with a small rule transgression, Piaget seems to have selected just that situation best suited to elicit

consequence-based judgments in less mature children and intent-based judgments in more mature children. As with the visual perspective-taking literature, the recent moral judgment findings show that when tasks are made simpler or are analyzed in greater depth, younger children look more sophisticated and older children (and even adults) sometimes look less sophisticated than Piaget's original formulation would have led one to suspect.

Weaknesses in the Piagetian Moral Judgment Paradigm

Several weaknesses in Piaget's paradigm have been pointed out by recent investigators. Probably the most prominent problem with Piaget's method is the "intent/consequence confound." In Piaget's stories severely negative actions were always paired with innocent or good intentions and slightly negative actions were always paired with disobedient or selfish intentions. This makes it impossible to determine if younger children's neglect of intention was absolute or only relative. If consequences were held constant and only intentions varied, would younger children still fail to utilize intentions in their moral judgments? If intent were held constant and only consequences varied, would older children still rely on the intention alone? A second problem with Piaget's method is that children were pressed to make a choice between two story characters, picking one of them as naughtiest. If intentions and consequences were independently varied, as just indicated, and children were allowed to respond with relative degrees of naughtiness, would their moral judgments rely on intent alone versus consequence

alone, or would naughtiness emerge as a function of both factors?

In addition to these two methodological problems with Piaget's moral judgment interviews, two other difficulties have created much confusion among subsequent interpreters of Piaget's findings. One of these additional problems appears to be largely a semantic one involving the word "intention." The English word "intention" can refer to two things: It can refer to the fact that an act was done "on purpose," and it can refer to the motivations underlying the purposeful act (cf. Berndt & Berndt, 1975). Piaget appears to have used the term in the latter sense in The Moral Judgment of the Child (1965) where he states clearly that his six- to seven-year-old subjects knew quite well that the negative consequences produced in his clumsiness stories were accidental (though as Berg-Cross (1975) has pointed out, the stories are actually somewhat ambiguous as to whether the damage was purposeful or not). Despite Piaget's very explicit statements in this regard, a number of subsequent researchers have apparently interpreted Piaget's moral judgment findings to mean that younger children can not tell accidents from purposeful acts. Below we will discuss some of the studies based on this assumption. The second non-methodological difficulty in Piaget's moral judgment work stems from the dual explanation of consequence-based judgments: in terms of both egocentrism and moral heteronomy. The "role-taking" literature we have briefly discussed above assumes that, due to egocentrism, younger children do not perceive internal states of others such

as intentions and motivations. In The Moral Judgment of the Child, however, Piaget explicitly stresses the fact that his younger subjects ignored the story characters' motivations, though they understood these motivations perfectly well (pp. 124-128, e.g.). Because of their heteronomous relationship with adults, Piaget thought, these younger children regarded the outcome of the act as the appropriate basis for a judgment, and thus neglected the intentional and motivational information they perceived. Somehow, however, Piaget's "moral heteronomy" explanation for younger children's neglect of the intentions they perceive seems to have been neglected itself by the majority of subsequent researchers in favor of the "egocentrism" explanation that younger children do not perceive intentions in the first place. Only relatively few recent authors have explicitly focussed their attention on the influence of adult and other socializing agents on children's judgments of others' behavior.

Recent Findings on Children's Moral Evaluations: Extension of the Piagetian Paradigm

Both the methodological and non-methodological problems mentioned above have been addressed in the growing body of research on children's appreciation of others' intentions, and several new and unforeseen influences on children's responses to problems involving intention have come to light. Some recent investigators have followed Piaget in using stories in which characters produce accidental consequences while performing acts that are either positively or negatively motivated (Elkind &

Dabek, 1977; Gutkin, 1972; Hebble, 1971). Other investigators have used stories (or films) in which consequences produced unintentionally are pitted against consequences produced on purpose (Armsby, 1971; Baldwin & Baldwin, 1970; Berg-Cross, 1975; Berndt & Berndt, 1975; Blidfell & Douglas, 1965; Buchanan & Thompson, 1973; Costanzo, Coie, Grumet, & Farnill, 1973; Farnill, 1974; Harris, 1977; Imamoglu, 1975; Irwin & Moore, 1971; King, 1971; Shantz & Voydanoff, 1973; Shaw & Sulzer, 1964). Yet other investigators have examined children's responses to various intentional acts, varying the motivation for, rather than the purposefulness of, the consequences produced (Berndt, 1977; Darley, Klossen, & Zanna, 1978; Rule & Duker, 1973; Rule, Nesdale, & McAra, 1974).

Unconfounding Intention and Consequence: Almost all of the studies above address themselves in one way or another to the intent/consequence confound in the Piagetian paradigm, but the results most directly comparable to the original findings come from three studies that employed stories which, like Piaget's, involved accidental outcomes produced in the course of good or bad actions. One of the earliest researchers to undertake orthogonal variation of intention and consequences using accidental outcomes was Hebble (1971), who used good/bad rating scales to assess first through sixth graders' judgments of four story characters: one had good intentions and produced slight accidental damage; one had good intentions and produced severe damage; one had naughty intentions and produced slight damage; and one had naughty intentions and produced severe damage. Hebble's findings showed that children in all age groups

rated the four characters in the order above from least to most bad, though first graders rated the well-intended characters as significantly more bad than older children did.

Elkind and Dabek (1977) used six story pairs that varied the degree of damage a character accidentally produced by using property damage as the less extreme consequence and injury to a person as the more extreme consequence. Their results justified this manipulation of extremity of consequence, showing that a large majority of their kindergarten, second-, and fourth-grade subjects judged personal injury as worse than property damage when type of intention (disobedient vs. obedient) was held constant. Elkind and Dabek also found that, with type of damage held constant, even the kindergarteners correctly chose a disobedient actor as more blameworthy than an obedient one. When type of intention and extremity of consequence were simultaneously varied, however, kindergarteners almost unanimously judged on the basis of consequence, fourth graders unanimously judged on the basis of intention, while second graders split fifty-fifty between the two possibilities.

Gutkin (1972) presented first, third, and fifth graders with a traditional Piagetian story pair, a story pair holding consequences negative and low while varying intention, and a story pair holding intentions "bad" while varying severity of negative consequences. Children were asked whether one of the two characters in each story pair was naughtier than the other or whether both characters were equally naughty. Results showed a main effect for story pair such that, for all age groups, judgments on the basis of intention (i.e., the "bad"

character chosen as naughtiest) occurred equally often for the Piagetian story pair and the intention-varied story pair; however, when only consequences were varied, judgments on the basis of intention (i.e., both characters judged equally naughty) were significantly less frequent. Instead, children tended to judge the character who produced severe consequences to be naughtier than the one who produced only slight consequences. There was also a main effect for age in Gutkin's data, indicating that fifth graders judged on the basis of intention significantly more often than first or third graders.

From the three studies above it becomes apparent than children's use of intention versus consequence as a basis for making moral judgments is not the simple either/or affair that Piaget's early analysis of the problem seemed to imply. Younger children do appear to take the intentions into account when variation in intention is not confounded with variation in consequence. By the same token, when variation in consequence is not confounded by variation in intention, older children appear quite ready to judge the producer of a severe accident as naughtier than the producer of a slight accident even though the intentions underlying both actions are the same. Thus, these studies point to the conclusion that learning to make moral judgments does not involve a rapid shift from complete reliance on consequences in all situations to complete reliance on intent. Rather, a more gradual process seems to be involved in which the importance of intention waxes stronger while the importance of consequences wanes.

Young Children's Evaluations of Accidents Versus Intentionally Produced Consequences: If it is true, as we have just argued, that when intention and consequence are not confounded, younger children are capable of overlooking accidental consequences and making moral judgments on the basis of the intentional acts in which the actors were involved when the accident occurred, then one would expect that these children should also be capable of making appropriate judgments when asked to consider intentionally produced consequences versus those same consequences accidentally produced. What does a review of the fourteen studies cited above as contrasting accidents and intentional acts reveal in this regard? Eight of these studies report that the youngest subjects studied (usually five- to seven-year-olds) did show significant differentiation in moral evaluation as a function of intent; one study produced mixed results; and five studies report no differentiation by intent. A close scrutiny of the published reports of these studies reveals a possible reason for the contradictory results: In those studies where the accidental versus purposeful nature of the actions under consideration appears to have been unclear, or where the published accounts of the stimulus materials are too ambiguous to allow an assessment, younger children are usually reported not to have differentiated appropriately in their evaluations of accidents versus intentionally produced outcomes. In those studies where the accidental/purposeful distinction appears to have been made very obvious, younger children are usually reported to have shown significant differentiation.

Among those studies finding appropriate use of intention by younger children is one done by Armsby (1971), whose story-pairs clearly stated whether or not damage to a physical object was accidental or purposeful. Armsby found that six-, eight-, and ten-year-olds had little difficulty judging purposeful damage as more reprehensible than accidental damage, unless the purposeful damage was very slight and the accidental damage extremely severe, in which case the six-year-olds showed a tendency to judge the extreme damage more harshly. Baldwin and Baldwin's story-pairs also stated outright that the accidental act was indeed accidental. They found that 66% of their sample of kindergartners and 92% of their second graders correctly identified intentional kindness as kinder than accidentally benefitting another.

Berg-Cross (1975) pre-tested her stories using adult judges in order to make certain that the intentions of the characters were clearly portrayed. She found that, when asked to judge single stories, six-year-olds assigned least punishment to characters who accidentally caused damage and most punishment to characters who purposefully caused damage. This held true for both low and high damage stories, though subjects assigned slightly greater punishment in the high damage condition regardless of the characters' intentions.

Farnill (1974) made his characters' intentions very clear in video-taped vignettes in which a "malicious" actor was portrayed lifting a tray of flower pots high in the air and deliberately smashing it to the ground, an "inept" actor was

portrayed handling the flower pots in a very clumsy manner before dropping the tray, and an "accidental" actor was portrayed as dropping the flower pots when a door opened suddenly and knocked the tray from his hands. Farnill found that even his youngest subjects, kindergarteners, rated the "malicious" actor as least good or helpful and the "accidental" actor as most good or helpful.

Harris (1977) used video-taped stimuli that depicted a girl breaking a chair. In Harris's "unforeseeable accident" condition, the chair had previously been described as "sturdy," yet it broke when the girl sat down on it. In the "intentional" condition, the girl announced that she was going to break the chair and then broke it. Using rating scales, Harris's first grade subjects judged the intentional damage as significantly worse than the unforeseeable accident.

Costanzo, Coie, Grumet, & Farnill (1973) used a novel strategy for manipulating the intentional versus unintentional nature of the consequences produced by story characters. Four stories portrayed characters who emptied out a toy box either to clean it up or to make a mess, this intention being clearly stated in the story. Two types of consequences followed each intention, an adult either praised the story character for helping or scolded him for making a mess. Costanzo et al. found that their kindergarten subjects, each of whom rated a single story character on a "good-bad" scale, failed to take the intentions of the story character into account when the consequence of the act was negative. However, the kindergarteners did take intentions into account when the consequence was

positive: an ill-intended character who was praised for helping was not rated as positively as a well-intended character who was also praised. Children at all age levels tested (kindergarten, second, and fourth grades) showed significant effects of consequences as well as intent. They downgraded a well-intended actor who was punished relative to one who was praised and upgraded an ill-intended actor who was praised relative to one who was punished. All six of the studies above found significant use of intent in moral judgments made by young children, and all six depicted the intentions of the actors or story characters very clearly. In two other studies that found significant use of intent by young children the clarity with which intentions were conveyed is not so apparent. One of these studies is by Buchanan and Thompson (1973), who report using stories in which characters caused "accidental" or "intentional" damage by throwing a ball or a rock. From their published report, however, it is not clear whether their "intentional" action was one in which the story character purposefully broke something, or whether they are using the word "intentional", as some authors do, to mean "accident in the course of an ill-intentioned act." But since they claim that one of their story characters "intentionally" produced damage, we will take them at their word. Buchanan and Thompson orthogonally varied accidental versus intentional damage and degree of damage produced and found that the scale ratings of first- to third-grade children were significantly influenced by intent when degree of damage was held constant even though these same children judged on the basis of

consequence on traditional Piaget-type stories. It should also be noted that children who judged on the basis of intent on the Piaget stories were significantly influenced by consequence when intent was held constant.

The second study in which the intentions of story characters were not clearly stated, but younger children seemed to judge accidental versus intentional acts as significantly different, is one by Imamoglu (1975). This investigator varied not only intention, but also the valence of the consequences produced (negative or positive) and the object affected by these consequences (human being or physical object). While Imamoglu's youngest subjects (five-year-olds) did not show significant use of intent when rating single story characters on a "good-bad" scale, they did differentiate on a "like-dislike" scale when the object upon which the story character inflicted negative consequences was a human being. They liked characters who accidentally hurt another person better than one who purposefully hurt another person. Five-year-old subjects, like older children, were also found to evaluate accidental actions significantly more slowly than intentional ones (except when negative outcomes to physical objects were involved). Thus, though Imamoglu's "good-bad" measure did not show significant use of intent in five-year-olds, the less usual "like-dislike" and response latency measures did. Like the results reported by Costanzo et al. (1973), Imamoglu's findings also showed significant effects of consequence valence even among her older (eleven-year-old) subjects. Negative consequences produced lower evaluation regardless of intent.

Having presented the foregoing evidence that five- to seven-year-olds can use intention in making moral judgments, let us now take a look at the other side of the coin and consider the six studies in which it was found that younger children did not use intentions appropriately in evaluating accidental as opposed to purposeful actions. Among the studies of the latter type is one done by Berndt and Berndt (1975) whose videotapes apparently did not make clear to children whether or not the actions to be judged were accidental or purposeful. Preschoolers and second graders could not say accurately whether the acts they had seen (one character shoving another under various circumstances) were "on purpose" or not, and their evaluation of the characters did not show "correct" use of intention. Also ambiguous are some of the published examples of stories used by Shaw and Sulzer (1964). The purposeful or accidental nature of the consequences various characters produced are not clearly stated in these examples, and seven-year-olds in one of Shaw and Sulzer's two studies did not evaluate accidents significantly differently than intentional acts, though seven-year-olds in the second study, which used different stories, did differentiate appropriately. Two additional studies (Blidfell & Douglas, 1965; and Shantz & Voydanoff, 1973) used identical stories about aggressive acts and found that seven-year-olds did not moderate retaliatory aggression when asked how they would respond to accidental versus intentional provocation. However, the published reports of these studies are not sufficiently detailed to permit a judgment as to the

clarity with which the aggressors' intentions were conveyed to the subjects. Finally, King (1971) found that younger children (preschoolers) did not differentiate between accidental and purposeful injury inflicted on one character by another in a film sequence. King does not describe his film sequences in sufficient detail for one to ascertain the clarity of the intention manipulation. However, a more glaring problem with this study is that children were required to give cogent verbal explanations of the actions they had observed in order to be given credit for having understood the intentions portrayed. Thus, from King's study it is impossible to tell whether the younger children really did not understand the intentions represented in the films, or whether they simply lacked the verbal skills to respond appropriately to the questions they were asked.

Thus, in five of the six studies finding that younger children did not use intentions appropriately when evaluating accidental as opposed to intentional moral transgressions, we see that the accidental/purposeful distinction was not made explicit or that the published reports of the studies are insufficient to allow a judgment. The sixth study, done by Irwin and Moore (1971), appears to be an exception to this rule. Irwin and Moore exposed four- and five-year-old subjects to several kinds of story pairs, two of which involved accidental moral transgressions. One type was a Piagetian story pair where one character had a big accident while performing a good act and another character had a small accident while performing a bad act; the second type contrasted purposeful and accidental damage. Irwin and Moore give only an example of a Piagetian-type

story pair, but in that pair it is explicitly stated that both accidents were in fact accidents. Although we can not tell for sure, it seems reasonable to conclude that the accidental versus intentional nature of story characters' actions was made explicit in the other stories as well. Despite this, Irwin and Moore found that their subjects performed at a chance level in choosing the intentional transgressor as the naughtiest of the pair.

Generally then, it appears that, with the exception of the Irwin and Moore study, those studies that did not find evidence for appropriate moral judgments among younger children in response to the accidental/intentional distinction also did not make this distinction clear to the younger subjects. However, since the older subjects (usually eight to twelve years) in most of these studies did respond appropriately, the negative findings among younger age groups can not be blamed simply on poor stimulus materials. One possible reason why older groups perform well regardless of the clarity of the stimulus materials while the performance of younger children varies may be that younger children are less familiar with communicative conventions both in stories and in visual materials and may thus perceive less readily that an accidental/intentional distinction is supposed to be conveyed by a particular communication (cf. Worth & Gross, 1974). For instance, one of Piaget's moral judgment stories portrays the following incident:

a little girl...wanted to give her mother a nice surprise and cut out a piece of sewing for her. But she didn't know how to use the scissors properly and cut a big hole in her dress. (1965, p. 122)

To almost anyone over eight years old it is obvious that the little girl cut the hole in her dress unintentionally. Why is it obvious? Because older persons know that one should not conclude that an actor intentionally produced some consequence unless that actor had both the intention and the ability to produce the consequence (cf. Heider, 1958). When an older person analyzes a story like the one above, he or she probably starts with the assumption that nobody would intentionally cut a hole in her dress. If the action was intentional, the communication would make a point of conveying this. Also, the story says that the little girl wanted to help her mother. Our knowledge of what intentions do and do not exist simultaneously in the same people tells us that girls who wish to help their mothers do not intentionally cut holes in their dresses. Thirdly, we are told that the girl does not know how to use the scissors properly. Knowing from points one and two that the cutting of the hole in the dress was a priori not intentional, this information about ability explains to us how a well-intended person has managed to produce such a negative consequence. Thus, close scrutiny of the "obviously" unintentional transgression in the story above reveals that it may be obvious only to an audience that already knows a good deal about what kinds of conclusions about intentionality one is supposed to draw when presented with a particular set of information about another person's actions. Because five- to seven-year-old children may not be entirely familiar with the conventional conclusions they are expected to reach given the information about intention and ability in the story of the little girl and the scissors,

the accidental/intentional distinction made in this story may be far less evident to them than it is to more sophisticated readers or listeners. If asked to make a good/bad judgment of the little girl who cut the hole, younger children might indeed fail to consider the accidental nature of the act, although they might be capable of using the accidental/intentional distinction if that distinction were made sufficiently salient through very straightforward visual or verbal portrayal (e.g., explicit use of the word "accident").

Although younger children's unfamiliarity with conventional communication explains some of the study to study variability in their apparent ability to use information about intentionality in making moral judgments, the seventeen studies reviewed thus far demonstrate clearly that age related differences in subjects' moral evaluations of accidental occurrences are not due simply to experimenters' failure to communicate effectively with younger subjects, nor can these differences be attributed solely to methodological problems with the paradigms employed to assess moral judgments. Even in those studies reporting significant effects of information about intentions among younger subjects, results still show that, as Piaget originally discovered, five- to seven-year-olds are more influenced by the consequences of accidental acts than are older children or adults. However, the foregoing studies make it clear that younger children are not totally unaware of the importance of intentions in moral judgments and that older persons are not totally immune to the influence of consequences. The bulk of

the evidence supports the conclusion suggested earlier that moral judgments across a wide age range reflect combined use of information about both intentions and consequences. This is most apparent in studies where subjects were asked to give ratings of the degree to which different characters were good or bad rather than being forced to choose which character was naughtiest (Costanzo, et al., 1973; Farnill, 1974; Imamoglu, 1975; Weiner & Peter, 1973). The Weiner and Peter study, for instance, manipulated one story character's ability and willingness to help another and the positive versus negative consequences incurred by the person needing help. Subjects from age four to age eighteen used a ten-point scale to indicate how much reward or punishment the "helper" should receive. Weiner and Peter's results showed that both intentions and consequences influenced rewards and punishments across this fourteen-year age span. Other research (e.g., Jones & Harris, 1967) indicates that even adults may be rather more influenced by the outward appearances of actions and less sensitive to situational cues to an actor's true intentions than a purely rational analysis of behavior would predict.

Children's Sensitivity to Mitigating Circumstances: The moral judgment situations discussed thus far have all required subjects to adjust their evaluations of actors in response to the presence or absence of an intention to produce a particular outcome. A different type of situation is employed in four additional investigations (Berndt, 1977; Darley, Klossen, & Zanna, 1978; Rule & Duker, 1973; Rule, Nesdale, & McAra, 1974) in

which all consequences were intentionally produced, but the intentions leading to the consequences varied. These studies examined children's sensitivity to various mitigating circumstances that might lessen the badness of an aggressive action. In the two studies by Rule and her associates, children six to twelve years old used scales to judge the badness of a story character who aggressed for hostile, selfish, or pro-social reasons. These reasons were always clearly stated in the story; e.g., He hit him to make him feel bad, or to get the toy for himself, or to make him give the toy back to its owner. Rule's findings indicated that even children as young as six regarded prosocial aggression as significantly less bad than aggression motivated by hostility or selfishness.

The two other studies provide even more dramatic evidence that young children can be very proficient at making moral judgments under the right circumstances. Berndt (1977) and Darley, Klossen, and Zanna (1978) both employed young children and adult control groups in their studies of mitigating circumstances surrounding an aggressive act and found no significant age effects in subjects' evaluations of aggression under the various circumstances examined. Berndt compared the evaluations of kindergarteners and adults asked to rate provoked and unprovoked aggression as portrayed in narrated slide sequences. Both groups saw provoked aggression as significantly less bad than unprovoked aggression, with no significant differences between age groups on Berndt's "good-bad" measure. Darley, Klossen, and Zanna examined the responses of first graders,

fourth graders, and adults to slide series depicting "aggressive" acts that were provoked, that were performed as a public duty (the "victim" refused others their turn), and that were performed out of necessity (the "aggressor" doused a victim who was playing with matches or smashed into somebody else's bike while trying to avoid hitting a baby). Darley et al. first exposed subjects to the aggressive act without information about mitigating circumstances. After subjects had assigned punishment for the act they observed, they were either told about the mitigating circumstances given irrelevant information. Then they were asked if they wished to change the punishment they had assigned. Subjects at all age levels recommended significantly less punishment after learning about the mitigating circumstances than after receiving irrelevant information, with no significant differences among the age groups.

That these studies on mitigating circumstances should produce no apparent differences between the evaluations of six-year-olds and the evaluations of adults is surprising since most of the studies covered earlier, which asked children to evaluate two accidental outcomes or an accidental and a purposeful one, found evidence of a developmental trend in children's moral judgments even over a relatively small span of middle childhood years. Why the children in the Berndt (1977) and Darley et al. (1977) studies should have performed so well relative to their counterparts in other studies is difficult to assess, but there are suggestions in the literature that are germane to this point. First of all, as we have illustrated at great length, the clarity of the presentations in the Berndt and the Darley et al.

studies may have enabled children to perform so well. However, even some of the very clearest studies we reviewed earlier found age related effects on moral evaluations, so it does not seem that clarity alone could account for the adult-like performance of young children in these two studies on mitigating circumstances. Thus, it is possible that these studies provide real evidence that children understand the importance of mitigating circumstances for aggression before they fully understand the importance of the accidental/intentional distinction. This possibility receives support from some of the research already covered. The Irwin and Moore (1971) study, which was mentioned above as using very clear stimuli, but finding no differentiation between intentional and purposeful damage, also investigated children's responses to story pairs involving guilty versus innocent persons and pairs involving transgressors who apologized versus transgressors who made restitution. Irwin and Moore's preschool subjects correctly chose at least good the guilty party in the guilt/innocent pairs and the "merely apologizing" party in the apology/restitution pairs. Though Irwin and Moore's contention that apology is not as good as restitution may be open to debate, their study does indicate that the accidental/purposeful distinction may be a relatively difficult moral concept for young children to grasp. If this is true, it may be the case that it occurs to children to discriminate among various intentional actions, aggressive ones for instance, before it occurs to them to discriminate intentional from unintentional acts. (This is the reverse of what another reviewer, Karniol, 1978, has suggested.)

The discrimination of intentional from unintentional acts seems so "primary" to the adult mind that it may appear paradoxical to suggest that under some circumstances children may be more sensitive to variations among intentions than they are to the "basic" distinction between an accident and a purposeful act. However, two complementary explanations can resolve the apparent paradox. One of these explanations involves close scrutiny of the "socialization context" that surrounds a child of a given age and influences his or her interpersonal judgments. The other explanation involves close scrutiny of the informational bases upon which interpersonal judgments rest regardless of the age of the person making the judgment. Together these two explanations provide a new framework for analysis of the factors influencing children's perceptions of others' behavior that is better designed than Piaget's system to deal with this specific cognitive developmental problem.

New Foci for Studying Children's Understanding of
Intentions and Motivations: Socialization
Context and Attributional Analysis

Socialization Context

The "socialization context" explanation for children's differential use of information about intentions in different situations has been suggested in various forms by several authors (Costanzo et al., 1973; Imamoglu, 1975; Karniol, 1978). This

explanation is similar to Piaget's original suggestion that children's "heteronomous" relationship with adult socializing agents produces a tendency to judge on the basis of consequences rather than intentions. Piaget stressed adults' general proclivity for emphasizing consequences and overlooking intent in disciplining children and from this posited a general failure on the part of children to utilize information about intentions in judging others. However, recent authors have pointed out that adults are more likely to fail to consider a child's intentions when applying discipline in some circumstances than in others and that children may learn from this that information about intentions should be attended to in some situations, but that in others it is relatively unimportant.

Consider, for instance, a young child romping in the living room while mother, sitting on the couch, studies her biochemistry text. Suddenly the young child bumps a table causing mother's favorite Venetian glass knick-knack to fall to the floor where it fortunately lands on the rug and is only slightly chipped. Still, Mother leaps up, bursts into tears, and cries out, "Now look what you've done! I've told you to stay away from that table! Go outside!"

Next consider two young children romping in the living room. One keeps jumping and jumping on the other in a playful attempt to wrestle 'til finally his playmate's patience gives way and she pushes him abruptly, causing him to fall down and start to cry. Mother looks up from her biochemistry, one eyebrow raised, and says to the victim, "Well, what did you expect

if you kept jumping on her? Now you two quiet down." Thus, the child learns the lesson that it is a terrible thing to knock over knick-knacks, but it's okay to shove your brother if he jumps on you first.

Not only does this tableau seem intuitively plausible, there are also some supporting data. We have previously reviewed studies on evaluation of aggressive acts that showed young children making remarkably mature evaluations of acts performed under mitigating circumstances. Also, Imamoglu (1975) found that children from five to eleven years old evaluated intentional acts and accidental damage to physical objects much more quickly than they evaluated accidental harm to human beings or accidental benefits involving either objects or humans. The implication is that, while Imamoglu's subjects had to think a bit about evaluating most accidents, accidents in which objects were harmed elicited a very rapid judgment. Imamoglu interprets this finding as tentative support for the argument that in situations involving damage to objects children have learned that intent is not too important, while in other situations intent is something to be considered. As additional evidence that this may be the case, Imamoglu also reports that her subjects' scale responses appeared to reflect greater use of intention when subjects judged acts that affected human beings than when they judged acts that affected objects.

Costanzo, Coie, Grumet, and Farnill (1973) also posited a "socialization context" explanation for their finding that five-year-olds appeared to use information about intentions

appropriately when judging acts with good outcomes, but their moral judgments in cases where outcomes were bad showed no influence of intent information. These authors suggested that parents may be more likely to take intentions into account in rewarding good behaviors than in punishing bad ones, partly because the parent's "affective arousal" is less likely to be extreme in the case of good behaviors. In the example given above, the mother who witnesses accidental damage to her favorite knick-knack might know quite well that the event was an accident, but be very distressed at the damage nonetheless. A parent's positive reaction to the good consequences of a well-intended act is less likely to be so extreme, and as Costanzo et al. point out, the parent is very likely to mention the good intentions underlying a positive act in rewarding that act. Imagine a child presenting his father with a paste-laden wad of red construction paper and doily, which he dubiously labels a "valentine". His father is very unlikely to mention the untidiness of the product in his response to this gift and very likely to stress his pleasure at the "niceness" of the gesture of giving.

Thus, a socialization context analysis of children's responses in moral judgment situations suggests that the developmental shift from judgment on the basis of outwardly visible consequences to judgment on the basis of "invisible" intentions and motivations need not be due to children's increasing experience at "taking the role of the other," nor need it be due to emergence from the "egocentricity" of the early childhood years. Rather, learning to judge behavior on the basis of intention may

be simply a matter of learning to attend to and to properly interpret the "correct" situational cues, cues that may be more complicated than simple information about the physical consequences of action, but which are every bit as "objective" in the sense of being externally observable.

Attribution Theory and the Analysis of Others' Behavior

In order to answer questions about the kinds of information to which children attend when judging others and to determine their ideas about the proper interpretation of this information, it is useful to begin by asking how adults presumably figure out what intentions may underlie another's act. This is one of the questions addressed by Heider (1958) in his original formulation of attribution theory, by Kelley (1967, 1971, 1972, 1973) in his "analysis of variance" model of adult attribution processes, and by Jones (Jones & Davis, 1965; Jones & McGillis, 1976) in his "correspondent inference theory" of the process by which others' intentions are inferred from their behavior. All three of these versions of attribution theory begin explicitly or implicitly with the assumption that human beings are motivated to discover the causes of events in the world around them so that they can predict and sometimes control these events in order to obtain pleasant outcomes and avoid unpleasant ones. There are many kinds of events one might wish to predict or control, but one particularly important kind of event is the behavior of other persons. By identifying the cause of a particular behavior or set of behaviors, the attributor may be able to discover invariant behavioral dispositions in the person

observed and hence may be able to guess how the person will behave in future situations. Such knowledge can guide the attributor's own behavior as he or she attempts to prevent undesirable or encourage desirable actions on the others' parts.

According to Heider's (1958) analysis, before an attributor can determine what behavioral disposition of an actor (if any) is reflected by that actor's production of a given behavioral outcome, the attributor must decide whether the actor has the ability to produce the outcome and whether the actor was trying to produce the outcome. It is often fairly easy for the adult attributor to decide that an actor had the ability to produce the set of outcomes observed and that the actor was trying to produce at least one of these outcomes. However, since the number of outcomes produced by a given act could be infinite, the attributor must still decide which of the outcomes an act produced were desired by the actor. It is the actor's desire for a particular outcome which is presumed to be the dispositional basis for further behavior directed at achieving the outcome.

Jones and Davis (1965) suggested that attributors narrow the field of outcomes that must be examined to find the outcome an actor desired by considering that subset of outcomes of an action that would not have been produced had some other action been performed in the same situation. This subset they referred to as the "noncommon effects" of a particular act. The smaller the number of noncommon effects an action produces, the easier it should be for an attributor to decide which effect was particularly desired by an actor, and thus, the easier it should

be for the attributor to make a "correspondent inference" from the outcome observed and thus to identify the disposition of the actor who produced the outcome. Particularly salient to an attributor are those noncommon effects of an action that are extreme or unusual relative to the effects most people would be expected to produce were they in the actor's situation. Jones and McGillis (1976) referred to such outcomes as having low "expected valence," expected valence being a term coined to refer to the degree of desirability or undesirability of a given outcome for a given actor. Such an expected valence might be based on two types of information. First, as mentioned above, it might be based on the desirability of an outcome to people in general, as assessed by the attributor on the basis of his or her ideas about general human desires or about the desires of a particular group of people of which the actor under consideration is a member. Jones and McGillis refer to this as a "normative expectancy." Second, an expected valence might be based on the attributor's knowledge about the desirability of an outcome to a particular actor, as derived from information about the actor's previous behavior with regard to the outcome. This is referred to as a "target-based expectancy."

Jones and McGillis's two types of expectancy were designed to parallel the concepts of consensus, consistency, and distinctiveness information, the three factors in Kelley's (1967) "analysis of variance" analog to the attribution process. In Kelley's scheme, consensus information refers to an attributor's ideas about how other people would behave in the situation

in which a given actor is observed. Consistency information is information about the actor's previous behavior in this situation, and distinctiveness information is information about how the actor has behaved in other situations. Thus, consensus information is similar to Jones and Davis's normative expectancy, while consistency and distinctiveness information would provide the basis for a target-based expectancy.

According to attribution theory, when we observe another person's behavior (or when we are told about it), we instantly and usually unconsciously draw conclusions about both the abilities and the intentions (desires) of the person observed. If this is the first information we have ever received about this actor, then of necessity our expectancies about his or her behavior are normative: we compare this person's behavior to our set of normative expectancies about behavior in this situation and place the person along a number of trait dimensions based on our comparisons. This gives us a rough target-based expectancy which additional information (consistency and distinctiveness) will refine and elaborate. In most of the adult attribution literature, however, and in all the developmental literature dealt with in this paper, our concern is with the first step, the construction of a first approximation target-based expectancy on the basis of the degree to which an actor's behavior fulfills or violates a normative expectancy.

Here we should observe that there could be very reasonable objections raised to an attempt to construe children's responses in moral judgment story paradigms as representing

"target-based expectancies" newly formed on the basis of the information in the stories. In fact, we have almost no information on what a "naughty" judgment may mean to children in terms of its implications for an actor's future behavior. Yet it is because adults think of the naughty judgment in terms of its future implications that a child's judgment of an innocent accident victim as "naughty" seems so inappropriate. Thus, in applying an attributional analysis to children's judgments of others, we should examine not only the question of what information children may use in applying labels to others, but also the question of what the labels seem to mean in terms of the target-based expectancies such labels imply to adults.

Developmental Research Inspired by Attribution Theory:

Attribution theory has inspired a number of recent researchers who have used its principles to investigate children's inferences in several different areas. A number of studies have been done investigating inferences about ability (i.e., competence) given different combinations of information about an individual's effort, about the performance of others at the task, and about the individual's outcomes on one or more occasions (e.g., Kun, 1977; Kun, Parsons, & Ruble, 1974; Weiner & Peter, 1973). Investigators have also examined children's use of the "causal schemata" that Kelley (1972) has suggested are used by adults as shortcuts in making inferences about the presence or absence of facilitory or inhibitory influences on the production of certain behaviors and about the relative strengths of these influences (e.g., Schultz, Butkowsky, Pearce, & Shanfield, 1975; Smith, 1975). Most relevant to the present paper, however, are

two studies by Costanzo and his colleagues dealing with children's attributions about an actor's dispositional likes and dislikes based on observation of choice behavior emitted either due to the actor's "own free will" or due to pressure from an outside agent. By using choice behavior, Costanzo and his associates hoped to examine children's attributions in a morally neutral context where adult socialization practices would not have predisposed children to give "wrong" answers. Costanzo, Grumet, & Brehm (1974) showed first, third, and sixth graders videotaped vignettes that portrayed a child actress choosing between two toys. Four conditions were run, one in which the actress chose and played with her choice undisturbed, one in which she chose and her choice was approved by an adult, one in which she chose, but was forbidden by an adult to play with her choice, and one in which she was unable to reach her chosen toy because it was on a high shelf. Based on attribution theory, what inferences about the actress's liking and wanting for the two toys should be drawn in these conditions? When a child chooses and plays with a toy with no external constraints, the only reason for this behavior, the only "noncommon effect," is the enjoyment produced by the toy. Thus, an attributor can easily conclude that the child plays with the chosen toy simply because she likes it better and wants it more than the unchosen toy. Even when the child can not obtain her first choice due to an environmental constraint (the high shelf), the attributor should still draw the conclusion that desire for the toy is the sole motivation for behavior directed at obtaining the toy.

However, when the child replaces her initially preferred toy and plays with the other toy because an adult has commanded this behavior, an additional effect enters the attributional equation. Playing (or not playing) now produces approval from the adult. Under these conditions, the attributor should be unable to make confident correspondent inferences with regard to the child's liking and wanting for the two toys. To put the same concept into Kelley's terms, the attributor should "discount" the actor's feelings about the toys as the cause of behavior toward the toys when another probable cause, the adult sanction, is present in the situation. The presence of multiple effects (causes) of an action should thus reduce the attributor's certainty about the true reason for the child's behavior and lead to unwillingness to attribute strong liking or disliking for the two toys.

Costanzo et al.'s results showed that, across all three age groups tested, children used both the actress's original choice behavior and her final interaction with a toy to infer the degree to which the toy was liked. When a toy was both chosen and played with, it was seen as very well liked; when the toy was either chosen, but not played with, or played with, but not initially chosen, it was seen as moderately well liked; and when the toy was neither chosen nor played with, it was seen as least liked. When asked to judge how much the actress wanted the toy, however, initial choice behavior was relied on to the exclusion of information about the actress's final interaction with the toy. That toy initially chosen by the actress was seen as very much wanted, while the initially unchosen toy was seen as not wanted. In addition, when children were asked which

toy the actress would pick to take home with her, they all but unanimously said she would prefer her initially chosen toy.

Thus, children from the first to the sixth grades appeared to be making very reasonable inferences about another person's dispositions in this simple situation. However, there were some illuminating age-related differences that appeared when attributed liking and wanting for the unplayed-with toy were examined. When rating the actress's liking and wanting for the unplayed-with toy, younger children seemed to make attributions in line with behavior when this behavior was due to adult sanctions. Their liking and wanting ratings were significantly lower when the toy was not played with due to adult constraint than when the toy was not played with due to environmental constraint. Relative to the younger children, older children in the adult constraint condition attributed significantly greater liking and wanting for the unplayed-with toy, indicating an awareness that failure to play with the toy due to adult sanction does not necessarily mean that the toy is not liked. Costanzo et al. suggest, in line with the "socialization context" explanation for children's errors in moral judgment situations, that younger children tend to underweight intention cues in situations where adult sanctions are involved, although they employ such cues more fully in situations where sanctions are not involved. Older children, who function in a socialization context that is no longer so dominated by adults, no longer make the "error" of inferring dispositions from behavior constrained by adult sanctions.

Grumet (1974), in a partial replication and extension of the Costanzo et al. (1974) study, investigated another possibility suggested by a socialization context analysis of children's attributions. She reasoned that, while older children indeed appear to have outgrown the tendency to attribute to others dispositions that conform to adult sanctions, these children's attributions may be influenced by peer sanctions since during later childhood children come to rely on peer group norms to a greater and greater extent (as argued by Piaget and as supported by a number of studies reviewed by Hartup, 1970).

Grumet examined the impact of peer sanctions on attributions made by first, third, fifth, and eighth graders in a toy choice situation very similar to that used by Costanzo et al. (1974). In Grumet's videotapes a child actress was seen choosing between two toys, but after her choice was made, either a peer or an adult approved or disapproved of her chosen toy. In the conditions where the sanctioner approved the actress's initial choice, she continued to play with this toy after the sanctioner left the room. In the conditions where the sanctioner disapproved of the actress's initial choice, she was shown to half the subjects playing with the toy the sanctioner had approved of (the initially unchosen toy), but half the subjects saw her putting down the approved toy and returning to her initially preferred toy.

Grumet's results in the adult sanction conditions were quite similar to the results reported by Costanzo et al. First graders attributed less liking for an initially chosen toy when it was disapproved by an adult and greater liking for an

initially unchosen toy that was adult approved. Third, sixth, and eighth graders all saw the initially chosen toy as better liked even though the adult had disapproved of it. In the peer sanction condition, first graders showed almost the same pattern of attributions seen in the adult sanction condition. Thus, Grumet's results suggest that first graders' attributions are influenced by behavior that is constrained by either an adult or a peer sanction. Choice is still very important, however, since a toy that was chosen but not played with was still seen as much better liked than a toy that was neither chosen nor played with.

Third and eighth graders showed similar patterns of response to either sanctioner. Third graders were somewhat more influenced than eighth graders by behavior constrained by sanctions, but the initially chosen toy was still rated most preferred. Sixth graders also used choice as the dominant cue when an adult sanctioner constrained the actress's behavior, but when a peer sanction induced the actress to play with her initially nonchosen toy, sixth graders attributed greater liking for this peer-approved toy than for the toy the actress had initially chosen. Thus, it appears that for sixth graders behavior in line with a peer sanction is seen as an indicator of real liking for the positively sanctioned object. This finding supports Grumet's predictions, based on a socialization context analysis, that the pre-eminent position of peers in the socialization context of older children would induce a tendency to attribute dispositions in line with peer sanctioned behavior

even though disposition is discounted as a cause of the behavior when an adult sanction is present. Sixth graders in the Grumet study showed some discounting of disposition when adult sanctions were present even when the actress's initially chosen toy was approved by the sanctioner. In this condition, sixth graders attributed somewhat elevated liking for the nonchosen toy, as if they were unsure of the actress's true feelings about it when an adult sanction "constrained" her to play with the toy she had picked in the first place.

This pair of studies by Costanzo, Grumet, and Brehm (1974) and Grumet (1974) demonstrates the usefulness of an attribution theory framework for examining the kinds of information to which children of different ages attend when making guesses about other people's likes and dislikes. The studies show clearly that for children of all ages intention, in the form of choice behavior, is an important clue to another person's dispositional preferences. However, the attributions of children of different ages appear to be affected differently by behavior in response to different kinds of constraints. Younger children (first graders) seemed prone to infer dispositions from constrained behavior when a social sanction was the constraint, though they relied more on unconstrained choice when an environmental obstacle was involved. Older children (sixth graders) discounted disposition when adult constraint could have caused the behavior, but when peer constraints were present, they appeared to infer disposition in line with the constrained behavior very much like younger children.

Rationale for the Present Study

The findings reviewed above support the hypothesis that children's apparent errors in inferences about social phenomena are due less to the kind of general cognitive immaturities suggested by Piaget and more to specific biases induced by the different social milieu that provide the context for inference at different points in development. It is no longer appropriate to direct research at the question of whether children ever employ intention in their judgments of others. Clearly, they can and they do use intention from quite an early age. The task of future developmental research appears to be to determine more fully those circumstances under which intention may be construed differently by persons of different ages and to investigate a number of entirely unresearched problems having to do with the meaning of an "attributional inference" to a young child. Although the discussion of the Costanzo et al. and Grumet results has been couched in terms of inferring or discounting "dispositions" as the cause of another's behavior, we really have very little evidence that children think of the words "good", "bad", "like", etc. as indicating the kind of behavioral dispositions Heider was thinking about when he used that term. The study reported in the present paper attempts to investigate children's ideas about the implications that others' present behavior may have for their future actions and to further explore the possible effects of socialization context on the attributions of children of different ages. In order to accomplish this, the study examines children's reactions to a

class of behaviors that adults typically regard as morally dubious, though outwardly they can be very "good". These are behaviors that we call "ingratiating", or as children often put it, "being good for a reason."

Thus, the study reported in the present paper veers away from the line of research we have just reviewed so exhaustively, but the influence of previous research does pervade this study in somewhat subtle ways. The decision to investigate outwardly nice acts that have somewhat devious motivations reflects the findings of Imamoglu (1975) and Costanzo et al. (1974) that children appeared to use intention better when positive acts were judged than when negative acts were judged. The decision to use different kinds of intentional acts rather than comparing different accidents or comparing accidents and intentional acts reflects the conclusion derived from previous literature that the accidental/intentional distinction may be a rather difficult one and that children may be better able to compare different intentions than they are to compare intentions that are present with intentions that are absent. By using only intentional acts, the present study should avoid the whole problem of whether or not a subject perceives an accident as an accident. Also, ingratiating acts of necessity are directed at other people, not at objects, and there is some evidence in the literature to suggest that intentions may be more relevant to children when other people are involved. We see, then, that ingratiating behaviors lend themselves nicely to developmental investigation not only because they are amenable to the kind of tidy attributional analysis presented in the following section,

but also because their investigation should address some of the possibilities raised by the foregoing review.

Attributional Analysis of Ingratiation

Jones and Wortman (1973) identify giving compliments, opinion conformity (agreeing with someone), rendering favors, and presenting oneself in a favorable light as the four major types of ingratiating behaviors, "a class of strategic behaviors illicitly designed to influence a particular other person concerning the attractiveness of one's personal qualities" (Jones & Wortman, 1973, p. 2). There is nothing intrinsically morally reprehensible about any of these behaviors. Indeed, it is because they can be perfectly nice, honest acts that they may be used to create a good impression of oneself. Whether these acts will be perceived as nice and honest, however, depends on the circumstances under which the acts are produced, because different sets of circumstances can indicate to the adult attributor different kinds of intentions underlying the production of the acts. Under some circumstances, an act that in itself is very positive can result in quite negative evaluations of the actor. Because the "correct" interpretation of ingratiating acts requires consideration of intention, such acts are ideal for use in an investigation of children's perceptions and evaluations of different kinds of intent. Thus, in the present study we interviewed first, third, and fifth graders and asked for their reactions to some stories about favor-doing and opinion conformity under different circumstances. (Compliments were also included

in a pilot investigation, but had to be omitted to keep the interview to a manageable length.)

In order to explain the rationale underlying the construction of the stories used in this study, let us begin by considering what kinds of attributions an observer might make about a person (the ingratiator) who did a favor for another person (the target) or who changed his or her opinions so as to agree with the opinions of the target. Such an ingratiator might value the target's liking and might have emitted the ingratiating act simply to establish an affective bond with the target. Or, the ingratiator might be attempting to establish an affective bond with the target so that the target will provide the ingratiator with desirable outcomes extrinsic to any enjoyment of the target's affection per se. Or finally, the ingratiating act may be seen as a sort of "knee-jerk" response demonstrated by the ingratiator either because he or she "just naturally" does favors or agrees with people or because the situation is such that almost anybody would behave as the ingratiator did.

Which of these three possible effects of an ingratiating act is the true goal of the ingratiator? An attributor might be interested in knowing this since the conclusions to be drawn about the ingratiator are different depending on which effect was the true motivation for the ingratiating act. A person who is a "natural" favor-doer or a person who does a favor simply to make friends with another is likely to be seen in a more positive light than a person who does a favor to

inspire liking, then "uses" that liking to achieve selfish, personal goals. A "natural" favor-doer or a person who wants to make friends is more likely to continue to do favors than a person who only does favors to obtain selfish ends. In the latter case, once the person's selfish ends have been achieved, he or she is not necessarily likely to continue to be "nice".

Opinion conformity is somewhat different from favor-doing in that "natural" opinion conformity does not conjure the same association "natural" favor-doing does. "Natural" opinion conformity usually betokens a fairly weak, dependent person who may be overly eager to be liked or perhaps afraid of interpersonal conflict. Thus, in the case of opinion conformity, the three attributions tend to collapse to two, "wanting liking for liking's sake," and "wanting liking in order to obtain extrinsic benefits," though within the "liking for liking's sake" attribution, the attributor might differentiate between opinion conformers who want all targets to like them and opinion conformers who are mainly interested in the liking of a particular target. Here again though, the person who conforms only to be liked is more likely to continue to do things to inspire liking than the person who conforms in order to obtain extrinsic benefits. The "natural" conformist may be weak, but the calculating conformist is insidious.

How does the attributor determine the effect(s) an ingratiator may desire when an ingratiating act is performed? Sometimes there may be an obvious extrinsic benefit to be gained through niceness to a particular individual. Sometimes there

may be no immediately obvious extrinsic benefit, but the power or status of the target at whom the ingratiation is directed may lead an attributor to suspect that more than simple niceness or agreeability underlies an ingratiator's action. The higher the status or power of the target, the greater the potential that extrinsic gains will be produced by nice behavior; hence, the greater the likelihood that the nice behavior was produced in order to achieve those extrinsic gains. Thus, by varying the presence or absence of obvious extrinsic benefits and/or the status (power) of the target of an ingratiating act, one should be able to change adult observers' attributions about the ingratiators from very positive (in the case of a favor-doer whose target is a person of low status and who has no obvious extrinsic benefit to gain from performing a favor) to fairly negative (in the case of ingratiators who seem to be deceiving their targets just to get extrinsic rewards).

Design of the Present Study

How would children of different ages respond to variations like those described above in the context surrounding an apparently nice act? To answer this question the present study examined the responses of first graders, third graders, fifth graders, and an adult control group to stories about favors and about opinion conformity directed at targets with different levels of status or power. The ingratiator in all these stories was described as a child of the subject's own age, except for the adult control where the ingratiator was described as a child of grade school age. In one set of stories the target of the

ingratiation was a person of very high status and power: the teacher of the ingratiating child. A second target was a person of moderately high status, another child in the ingratiator's class who was described as very well-liked by his or her classmates (sex matching subject's sex). This target will be referred to as the high status peer (HSP). A third target of ingratiation was a person of low status, another child in the ingratiator's class who was not very well-liked by his or her classmates. This target will be referred to as the low status peer (LSP). In addition to varying the target of the ingratiating acts, the present study also varied the presence or absence of a desirable benefit over which the target had control. Thus, in one story an ingratiator did a favor after learning that the target of the favor had the power to assign places on the kickball team, kickball being the ingratiator's favorite pastime. In another story, an ingratiator changed his or her opinion to conform to the opinion of a target who had the power to assign the part of Rudolph the Rednosed Reindeer in a class play, Rudolph the Rednosed Reindeer being the ingratiator's favorite story. In two other stories, a favor and an act of opinion conformity occurred without an explicit ulterior motive mentioned. The factors manipulated in these stories (along with the subject factors of age and sex) result in a 4 (age level) x 2 (sex) x 3 (target status) x 2 (type of ingratiating act) x 2 (presence or absence of obvious ulterior motive) factorial design, the last two factors being within subject.

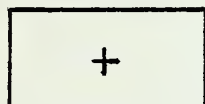
Two kinds of predictions were made about the attributions subjects might make in response to stories of the type described above. First of all, from a logical attributional analysis of the "data" contained in each story we derived a set of heuristic predictions, the logical conclusions that "should" have been drawn from the information the stories provided if subjects reasoned as attribution theory suggests and if they perceived the motivations in the stories in the manner suggested by the experimenter. Against these heuristic predictions we measured the performance of children of various ages and also the performance of the adult control subjects. Secondly, from the developmental literature previously reviewed we derived some age-related hypotheses as to how children of different ages might respond to the stories they heard.

Attribution Theory Based Predictions: Considering these two types of predictions in order, we turn to the "heuristic" or logical predictions first. To do this, it is convenient to employ the concept of the expected valence of various effects as presented in the Jones and McGillis (1976) version of attribution theory. Figure 1 is an attempt to schematically represent the situation existing in the various story situations created for the experiment. The "+" symbols in Figure 1 represent the expected valences associated with various effects that might follow ingratiating acts directed at various targets with and without an obvious extrinsic benefit involved in the story. In these stories, of course, the subjects had no prior information about the particular ingratiators, so the expected valences of

VERY HIGH STATUS TARGET (Ingratiator's Teacher)

1. No Ulterior Motive (No particular Extrinsic Benefit Mentioned)

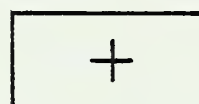
Liking Only*



Extrinsic Benefits

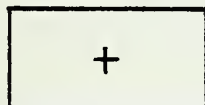


"Knee-jerk" Response



2. Ulterior Motive (Explicit Extrinsic Benefit Mentioned)

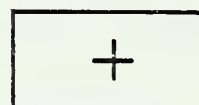
Liking Only



Extrinsic Benefits



"Knee-jerk" Response



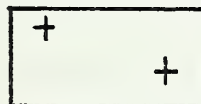
MODERATELY HIGH STATUS TARGET (Well-liked Peer)

1. No Ulterior Motive

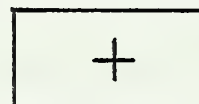
Liking Only



Extrinsic Benefits



"Knee-jerk" Response



2. Ulterior Motive

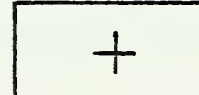
Liking Only



Extrinsic Benefits



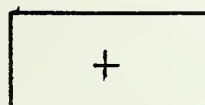
"Knee-jerk" Response



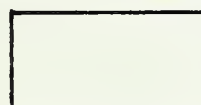
LOW STATUS TARGET (Disliked Peer)

1. No Ulterior Motive

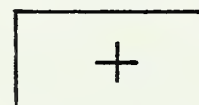
Liking Only



Extrinsic Benefits

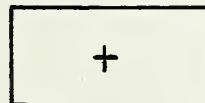


"Knee-jerk" Response



2. Ulterior Motive

Liking Only



Extrinsic Benefits



"Knee-jerk" Response



*The larger and darker the "+" sign, the higher the expected valence of the outcome.

Figure 1. Schematic Representation of an Attributional Analysis of Ingratiation.

the outcomes of the ingrating acts had to be based on normative expectancies, or the assumed desirability of the outcomes to people in general. The assumptions underlying the schematic representation in Figure 1 are these:

1) Very high status target (Adult): First of all, what expected valence might we assign to the outcome "gaining the liking of the very high status person for the sake of that liking alone?" Because of the huge difference in status and power (not to mention age) between the ingratiator and the target, it is unlikely, unless the ingratiator is rather stupid, that the two will become "buddies", so it does not seem likely that this could motivate the ingrating behavior. It is possible, however, that the ingratiator does like or admire the high status person and desire the person's approval, thus in Figure 1 the "liking only" effect has a moderately positive expected valence signifying that most people would probably find this outcome moderately desirable.

Second, what expected valence is to be assigned to the outcome "gaining extrinsic benefits?" Figure 1 shows that, when the target of a nice act is a very high status person, there tend to be a variety of extrinsic benefits, small and large, that might have moved the ingratiator to perform the ingrating act even when an obvious ulterior motive is not stated in the story. In the case of an obvious ulterior motive situation Figure 1 shows that just one more "+" is added to the extrinsic benefit box. It is not quite a drop in the bucket, but still makes a somewhat minor contribution to the overall picture,

which is heavily loaded to produce an "extrinsic benefit" attribution anyway. Thirdly, what of the possibility that the observed ingratiation is dispositional, that this is a "knee-jerk" response that is not really a function of the target? This type of "effect" is a little different than the others and is probably better thought of in terms of simple prior probability than in expected valence terms. In Figure 1 the probability of knee-jerk favors (or conformity) is represented by a moderately large, dark "+" that is constant across target and motive conditions. This is intended to represent the possibility that the ingratia-tor is one of those persons who always behaves in the observed manner.

It may be that the a priori likelihood of favor-doing is somewhat higher than the a priori probability of opinion conformity because favor-doing is more socially desirable. However, the general principle of a constant likelihood of encountering a person who chronically engages in the observed behavior should still hold.

2) Moderately high status target (High status peer):

In this case, the expected valence assigned to the "liking for the sake of liking" alternative is much higher than in the case of the very high status person, on the assumption that when the status differential between ingratia-tor and target is not too extreme, the possibility of becoming "buddies" is not so remote and the outcome becomes very desirable. The moderately high status person may also be able to provide some benefits that are extrinsic to a friendship, but in the particular case considered, that of a well-liked peer, these extrinsic benefits

are likely to be of considerably lesser magnitude than the benefits intrinsic to the friendship itself.

When an obvious extrinsic motive enters the picture, things become less clear. Figure 1 portrays a situation where pure friendship and the extrinsic benefit are about equal in expected valence. In this case, presumably, there would be considerable uncertainty as to what was the actual goal of the observed ingratiation. Here again, as explained above, the probability that this behavior is a "knee-jerk" type response is represented by a constant moderate "+".

3) Low status target (Low status peer): When the target of a nice act is a person of low status, Figure 1 assumes that there is a relatively low expected valence for the effect "liking for liking's sake." The assumption is that it is not all that valuable to win the friendship of a low status peer--in fact, it might even be detrimental to one's own status. It is also assumed that a person of low status is not likely to control extrinsic benefits that the ingratiator might desire, unless the situation is arranged so that the low status person does happen to control some valuable resource. In that case, Figure 1 shows a very large, dark "+" in the extrinsic benefits box, indicating that this is a very prominent possibility for cause of the observed ingratiation. In the case where there is no ulterior motive, however, Figure 1 shows that the "knee-jerk" alternative, still at the same moderate constant level that it has been all along, becomes the most salient cause of the behavior. Hence, the person who is nice/agreeable to the low status person with no extrinsic reason to do so is probably a

generally nice person. Figure 1 also shows that, in the absence of an obvious extrinsic benefit, the possibility that the ingratiator really likes the target also becomes more salient.

In order to explore the attributions subjects made about the ingratiators in the various stories designed for the experiment, this study employed a variety of dependent measures aimed at discovering what dispositions subjects attributed to these ingratiators and what evaluations they made of persons who had such dispositions. First of all, we simply asked why the subject thought each ingratiator had done what he or she did. In addition, we asked how much the subject thought that the ingratiator liked the target, and we asked whether the subject thought the ingratiator would repeat the identical behavior in another situation (always a no ulterior motive situation) toward the original target of the behavior and toward another target, described as "a regular kid in the class." We also asked how many other people would have acted as the ingratiator had if they had been in the story. This was an attempt to measure the perceived usualness of the ingratiating behaviors so as to discover whether usualness was related to interpretations and evaluations of behavior as attribution theory expects it should be.

An additional question pertaining to both the disposition attributed and to the evaluation of the ingratiator was a question as to whether the action was "nice" or not. The other question that tapped into subjects' evaluations of the ingratiators was simply, "Do you think you would like this person if

you met him/her in real life?"

What results would we expect to see on these dependent measures if subjects agreed with the experimenter's conception of these ingrating situations and used the kind of logical analysis just provided? First of all, no specific predictions were made with regard to different responses as a function of the type of act the ingratiator employed. It was assumed that both opinion conformity and favor-doing would be seen as directed toward producing liking, either for liking's sake, or to get extrinsic benefits, (or because the person is a "knee-jerk", non-goal oriented favor-doer). The main concern of the study was differential attributions based on perceived motives underlying these acts, and it was assumed that these perceived motives would not interact with type of act performed.

Heuristic predictions regarding the effects of the presence or absence of ulterior motives were as follows: In general, the absence of an explicit ulterior motive should produce attributions of greater liking for the target on the part of the ingratiator along with fairly confident predictions that the behavior would be repeated both to the original target and to a new target. No ulterior motive behaviors should also be perceived as nicer, and no ulterior motive actors should be better liked.

The status of the target of the ingrating act should modify the main effect for motive in the following way: When the status of the target person is very high, this should very much reduce the effect of the explicit ulterior motive manipulation because of the fairly high likelihood that the "no ulterior

motive" behavior was in fact prompted by a desire for extrinsic benefits. Thus, in the adult target condition, the ratings of ulterior motive and no ulterior motive ingratiators should be more or less equal (and low to moderate) across the board. The most evident effects of status should show up in the two questions about the probability that the behavior will be repeated to the original and to a new target. When the status of the target is very high, subjects should be quite certain that the behavior will be repeated to the original target, but quite uncertain as to whether the behavior will be repeated to a new target of lower status than the original.

When the status of the target person is only moderately high, the impact of the ulterior motive manipulation should show up to a greater extent. When there is no ulterior motive obvious, the ingratiator should be seen as liking the target very much. Subjects should be quite confident that the behavior will be repeated again to the same target, but somewhat less confident that the behavior will be repeated to a new target of lower status. The behavior should be seen as quite nice, and subjects should like the ingratiator quite a bit. When there is an obvious ulterior motive, subjects should be rather uncertain as to what the true cause of the behavior was. This should be reflected in somewhat reduced attributions of liking and of consistency both to the original and to a new target. The behavior should also be evaluated as less nice.

In the case of a low status target, the impact of the ulterior motive manipulation should be extreme since it is in this target condition that the causes of the behavior should be

most ambiguous. When there is no ulterior motive the only explanation for the behavior should be that the ingratiator is quite a nice person. Subjects should see this ingratiator as liking the target moderately to very well, and as quite likely to repeat the behavior both to the original target and to a new one. (The new one would be of slightly higher status this time.) This ingratiator should be quite well-liked for his or her altruism. In the ulterior motive condition, however, the presence of the extrinsic benefit should be very salient and thus quite likely to be seen as the cause of the ingratiating act. Here subjects should be quite unwilling to attribute high liking for the target to the ingratiator; they should also reduce their certainty that the behavior will be repeated either to the original target or to a new one; and they should be quite guarded in their liking for the ingratiator and in their evaluations of his or her niceness.

Summarizing the foregoing in a slightly different way, we can say in general that in the no ulterior motive condition subjects should become more and more sure that the ingratiator is a nice person as target status decreases. Thus, positivity of evaluation should increase as target status decreases. In the ulterior motive condition, no strong predictions are made about differences between attributions in response to ingratiating directed at the very high and at the moderately high status targets, but in the low status target condition, subjects should be very suspicious that the ingratiator is in fact not really a nice person. Thus, in the ulterior motive condition, positivity

of subjects' evaluations should decrease as target status decreases.

Age-Related Predictions: The set of attribution theory based predictions outlined above was intended as an idealized template against which subjects' responses could be compared rather than as a description of the form subjects' responses actually were expected to take, especially when the subjects were younger children. This section will consider the age-related differences in interpretation and evaluation of ingratiation that might be expected given the literature on children's appreciation of intent that was reviewed above.

First of all, what differences with age might be expected in the perception and evaluation of ingratiation directed toward different targets? Should the youngest children in the study, first graders, be expected to perceive and censure ingratiating intent, or will they see all the story behaviors as vaguely, undifferentially "nice"? On the basis of the literature reviewed previously it was expected that in this simple story situation, the youngest children would be able to see quite well when the main goal of a behavior was to get some extrinsic benefit. However, younger children's evaluation of such behavior, particularly in the case of the very high status target, was left very much open to question. Because of younger children's "heteronomous" relationship with adults, it seemed quite likely that they would see any "good" behavior directed at an adult as very good, regardless of the motives that underlie the act. Whether they would detect the "sneakiness" of ingratiation when the target was another child, was unclear, but

it seemed unlikely that first graders would have had enough experience with peer-peer ingratiation to understand the illicit element in such behavior. Thus, it is expected that first graders would tend to see all the behaviors as very positive, perhaps more so when the target was an adult.

Whether these young children would make sensible behavioral predictions was another open question. As discussed above, children have almost never been asked to predict the future behavior of the story characters they have rendered moral judgments upon, but we have mentioned a few hints from the literature that they may be able to make the behavioral predictions, at least on a very simple level. In Imamoglu's (1975) study, five-year-olds differentiated story characters who inflicted accidental versus purposeful harm on another person when asked how much they liked the characters, though they failed to differentiate on a good/bad measure. This may have indicated some awareness that persons who accidentally inflict harm are not likely to continue to inflict harm in the future. In Farnill's (1974) study, kindergarteners were able to predict appropriately that malicious and inept actors would not be very helpful on a block stacking task, while an actor who was knocked over by a door that suddenly opened behind him would be helpful. Costanzo, Grumet, and Brehm (1974) asked children what toy their videotaped actress would like to take home with her and found that children predicted quite accurately that she would take home the toy she had first chosen regardless of whether she had gotten to play with that toy or not. In the present situation, there

was no very good basis for a prediction as to how children might respond to the two questions about future behavior, so that, in the case of the youngest children, these questions were regarded as exploratory.

By the time children have reached the fifth grade, most of the literature (cf. Hartup, 1970; Hoffman, 1970; Piaget, 1965) reports them to be at a point in development where they are very concerned with peer groups norms, particularly with ideas about equity and fair play. Ingratiation is a form of "not playing fair," and fifth graders were thus expected to have an appreciation of ingratiating intent and its implications for the dispositions of the ingratiator. In particular it was expected that they would be aware that a person who is nice in order to gain some extrinsic benefit is not likely to keep being nice in the future.

The Effectiveness of Ingratiation: In addition to the questions mentioned above that were intended to assess subjects' attributions about the ingratiators' dispositions and their evaluations of the ingratiators, we also included three questions that were designed to investigate children's perceptions of the effectiveness of the ingratiating behavior. We asked how "smart" the ingratiating behavior was, how much the target would like the ingratiator after the ingratiating act, and, in the case of the stories with an obvious extrinsic benefit, we asked whether the target would bestow this benefit on the ingratiator.

These questions were included in order to assess the perceived effectiveness of the ingratiating acts and specifically

to discover if and when children would begin to differentiate their own evaluations of the ingratiator from the evaluations of the various targets, and if and when they might begin to expect differential effectiveness of ingratiation as a function of target status. From an adult point of view, ingratiation directed toward a low status person is more likely to be effective because low status people are less likely to be "on guard" against ingratiating overtures and because low status persons may be more likely to "need" friends. According to the "role-taking" literature, children at the first-grade level, and probably at the third-grade level, too, should be quite insensitive to nuances such as these. By the fifth grade, however, children should be at least beginning to have an awareness of the implications of differential status in the peer group, and thus they were expected to show some awareness that ingratiating overtures might be more effective when directed at a low status peer. An additional probe into the kinds of ingratiation children might see as effective was included in the form of a question that asked the subjects to pretend that they were in a situation where they wanted to get an extrinsic benefit out of one of the three types of target persons mentioned above. No predictions were made regarding responses on this measure, which was included for exploratory purposes.

Sex: Also largely exploratory was the inclusion of sex as a factor in the design. Girls are often reported to be more dependent and conforming than boys (Mischel, 1970) although the degree to which this conclusion rests on experimental result rather than cultural myth is debatable (Maccoby & Jacklin, 1974).

Boys are more likely than girls to belong to fairly large groups of peers and hence more likely to participate at an earlier age in situations where peer group hierarchies and power relationships play an important role in social interaction (Maccoby & Jacklin, 1974). How might such factors affect the different sexes' responses to ingratiating behavior in others? Though no specific predictions were made with regard to sex differences, sex was included as a factor in the design so that any systematic differences that might be present could be examined.

The adult control group: The intended function of the adult control group included in this study deserves a special word. Since, as we mentioned earlier, adults are not always as nicely logical as attribution theory's ideal attributors might be, it was considered advisable to check on adult perceptions of the stories used in the experiment. Thus, we will have two standards against which we can measure the performance of children on the tasks used in the study: first, the logical attributional analysis, and second, the responses of a sample of real adult attributors. Because one function of the adult sample was to check on the degree to which adult attributions resemble the heuristic ideal, results of analyses of the data from the adult sample alone will be presented separately throughout the results section as well as results of the overall analysis of the data from all four age groups.

CHAPTER II

METHODS

Subjects

One hundred forty-four subjects were run, 36 each from the first, third, and fifth grades at the Altamahaw-Ossipee Elementary School in Elon College, N. C. plus 36 Duke University undergraduate and graduate students. Half of the subjects in each age group were male and half were female. Child subjects were selected at random from class lists and were randomly assigned to conditions, except that care was taken that black subjects were distributed evenly across conditions. Altamahaw-Ossipee draws its students from a predominantly white population so there were few black subjects (2 males and 2 females in the first grade, 4 males and 3 females in the third grade, 3 males and 3 females in the fifth grade, and none in the adult group). The results were not analyzed by race. Twenty-eight of the adult subjects participated in the experiment as partial fulfillment of an introductory psychology course requirement. Eight of the adults were experimental psychology graduate students who kindly volunteered to take part in the study when the supply of available undergraduates ran out. All of these graduate students were unfamiliar with attribution theory.

Materials and Procedure

Stories

In order to manipulate the type of ingratiating act that subjects would judge and to manipulate the presence or absence of an obvious ulterior motive, four stories were composed: an ulterior motive opinion conformity story (UM/OpCon), a no ulterior motive opinion conformity story (NUM/OpCon), an ulterior motive favor story (UM/Favor), and a no ulterior motive favor story (NUM/Favor). The stories were readily altered to make the target of the opinion conformity or favor a low status (disliked) peer, a high status (well-liked) peer, or an adult (teacher). Each subject heard all four stories, which were recorded on tape cassettes, but for any given subject, the stories involved only one type of target. Thus, type of ingratiating act and presence or absence of ulterior motive were manipulated within subject, and type of target was manipulated between subjects.

The text of the four stories was as follows:

Ulterior Motive Opinion Conformity

This is a story about Mrs. Rudman's class. It's at another school. One day, Mrs. Rudman said, "Okay, everybody; it's almost Christmas time. To celebrate Christmas, our class is going to put on a play about Rudolph the Red-Nosed Reindeer. One person will play Santa Claus. One person will play Rudolph the Red-Nosed Reindeer. The other people can either be the other reindeer besides Rudolph, or they can be Santa Claus's elves."

PEER VERSION: "Now", said Mrs. Rudman, "I am going to write the name of each person in the class on a piece of paper and put the pieces of paper in a box. Then I will pick out one piece of paper, and the person whose name is on it will get to be the director of our play. The director will get to pick who will play Santa Claus, and who will play Rudolph, and who will play all the other parts."

After Mrs. Rudman wrote down all the names and picked one out of the box, she said, "The name I picked is Mary (Matt in the male version), so Mary will be the director and say who gets to play each part." High status: Mary was a kid that almost everybody in the class liked a lot. They thought she was very nice. Low status: Mary was a kid that not many kids in the class liked very much. They didn't think she was very nice.*

Well, there was another kid in Mrs. Rudman's class named Toni (Timmy in the male version). As soon as she heard about the play, she decided that she really, really wanted to be Rudolph the Red-Nosed Reindeer, because that was her favorite story. And Toni heard Mrs. Rudman say that Mary would be the director and would say who got which parts in the play.

Then, a little while later, everyone was making costumes for the play. Toni heard Mary say, "I don't like this kind of cloth we're supposed to make costumes with. I think we should make the costumes with paper. It's easier."

Toni heard what Mary said. She didn't like costumes made with paper. She thought those kinds of costumes looked dumb. But Toni said, "Oh yes, Mary. I think the paper is better to make costumes with."

ADULT VERSION: "I am going to be the director of our play and pick who will play Santa Claus, and who will play Rudolph, and who will play all the other parts."*

Well, there was a kid in Mrs. Rudman's class, named Toni...etc. (Identical to peer version, but with teacher name replacing "Mary").

The elaborate explanation of how the peer director was chosen was a response to comments from a pilot subject who

*Asterisks indicate the point at which the story was interrupted for the "imagine self" task, described later in this section.

thought that the teacher would only pick a child to be director if that child had special expertise. If the peer director had special expertise, it would be reasonable to change one's mind to agree with him or her. The lottery process should have made it clear that this was not the reason Mary (or Matt) was selected to direct. The present author's observations in North Carolina public schools indicate that teachers do occasionally use lotteries to pick students for special assignments, so this method of selection should have been familiar to subjects.

No Ulterior Motive Opinion Conformity

This is a story about Mrs. Fitzgerald's class. It's at another school. One day Mrs. Fitzgerald said, "All right, class. Today we are going to put up a bulletin board about winter. Here is some white tissue paper and some white construction paper. I would like everybody to use scissors and cut some snowflakes out of the paper."

PEER VERSION: This is one kid in Mrs. Fitzgerald's class. Her name is Patty (Paul in male version). Her desk is next to Leslie's (Larry's in male version). High status: Leslie was a kid that almost everybody in the class liked. They thought she was very nice. Low status: Leslie was a kid that not many people in the class liked. They didn't think she was very nice.

After a while, Patty heard Leslie say, "I don't like this tissue paper for making snowflakes. I like the construction paper much better." Now Patty didn't like the construction paper very much. She thought the tissue paper was prettier. But Patty said, "Oh yes, Leslie. I like the construction paper better, too!"

ADULT VERSION: This is a kid in Mrs. Fitzgerald's class. Her name is Patty. Her desk is close to Mrs. Fitzgerald's. Mrs. Fitzgerald was making snowflakes out of paper along with the kids.

After a while,...etc., as above substituting adult name for "Leslie".

Ulterior Motive Favor

This is a story about Miss Louis's room. It's a class at another school. One morning, Miss Louis said, "Now children. At recess later today we will play two kinds of games. Some people will stay inside and play a spelling game. Some people will go outside and play kickball."

PEER VERSION: "Andy (Ann in the female version) will be the captain of the spelling team. Brian (Betsy in the female version) will be the captain of the kickball team. Right before we have recess, Brian will pick who gets to go outside and play kickball." Now, as it happened, High status: Brian was a kid that almost everybody in the class liked. They thought he was very nice. Low status: Brian was a kid that not many people in the class liked. They didn't think he was very nice.*

Now, there was another kid in Miss Louis's class named Carl (Carol in the female version). He really, really wanted to go outside and play kickball. He heard Miss Louis say that Brian would be captain and would pick who got to play kickball.

Then, in a little while, Carl noticed that Brian was looking and looking for something in his desk. He heard Brian say, "I can't find a pencil!" Quickly, Carl said, "Here, Brian! You can have one of my pencils."

ADULT VERSION: "Right before recess, I will pick who gets to go out and play kickball and who stays in and plays the spelling game."*

Now, there was a kid in Miss Louis's class named Carl. He really, really wanted to go outside and play kickball. He heard Miss Louis say that she would pick who got to play kickball.

Then, in a little while, Carl noticed...etc. as above with suitable substitution.

No Ulterior Motive Favor

This is a story about Mrs. Morton's room. It's at another school. It was early in the morning, and everybody in the class was working hard doing their lessons.

PEER VERSION: This is one kid in Mrs. Morton's class. Her name is Della (Danny in male version). Her desk was right next to Kathy's (Kenny's in male version). High status: Kathy was a kid that almost everybody

in the class liked. They thought she was very nice.
Low status: Kathy was a kid that hardly anybody in
the class liked. They didn't think she was very nice.

This morning, Della noticed Kathy was looking for something in her desk. She looked and looked. Then Kathy said, "Oh! I can't find any paper." Quickly Della said, "Here Kathy! You can have some of my paper."

ADULT VERSION: This is one kid in Mrs. Morton's class. Her name is Della. Her desk is close to Mrs. Morton's. This morning, Della noticed Mrs. Morton looking for something in her desk. She looked and looked. Then Mrs. Morton said, "Oh! I can't find any paper." Quickly Della said, "Here Mrs. Morton! You can have some of my paper."

Procedure: Children

All subjects were interviewed by the same female experimenter, and almost identical procedures were used for child and adult subjects. Child subjects were taken individually from their classrooms to a small room near the school library. The experimenter had previously been introduced to each class by its teacher, who explained that the experimenter would be asking pupils to come listen to some stories and answer questions about them. Once each subject arrived in the experimental room and was seated, the experimenter asked:

Okay, have you heard anything about what I'm doing back here, about the kinds of stories I've got and the kinds of questions I've been asking people?

This question was aimed at discovering whether previous subjects had said anything to their classmates about the content of the interview. No subject ever admitted having heard anything about the stories, though one child did say he had heard they were a secret.

Once subjects had indicated that they knew nothing about the task, the experimenter continued:

Okay, here is what we're going to do. I am going to play four stories for you on my tape recorder. They are all very short and easy stories about kids your age. After each story I will ask you some questions about what happened in the story, so you have to pay attention and listen very, very hard so you will be able to answer my questions. The questions will be really easy if you listen to the story carefully. I'm also going to show you some pictures that go along with the stories. They are just for fun and to help you remember what happens in the stories.

Okay, sometimes when I ask you questions I will record your answers on the tape recorder. When I do that, I want you to be sure to speak up so the microphone will be able to record your voice. Sometimes I am going to ask you to answer questions using some special "rating scale cards." There are five different rating scales, but they all work about the same way. This one will be used when I ask you about how much you like the children in the stories on the tape or when I ask you how much you think they like something.

Rating Scales Demonstration

At this point, the experimenter showed the subject the liking scale included in Appendix A. This scale was represented on two 8 1/2" x 11" cards, each with a series of five vertical columns 3 cm. wide and ranging in height from 1 to 14 cm. The "like" card had columns that increased in size from left to right and were labelled to represent a little bit of liking to very, very, very much liking. The "dislike" card was similarly arranged, but was a different color, and the columns were labelled to represent a little bit of disliking to very, very much disliking. The experimenter then continued:

See, one card is for when you like something, and one card is for when you don't like something. Like, suppose I asked you if you like ice cream. Do you like ice cream? Okay, now if this little box here means you like ice cream just a little bit, this next box means you like it some, this next one means you like it pretty much, this next one means you like it a lot, and this biggest box means you like ice cream very, very, very much--- which box tells how much you like ice cream?

Children were then asked to name some kind of food they did not like, and the disliking card was demonstrated. The experimenter then took out the "sureness" scale, which was physically very similar to the like and dislike scales, but was again a different color and differently labelled. She continued:

Sometimes I'm going to ask you how sure you are about your answers to some of my questions. Do you know what that means? Okay, let me ask you this: Do you know what they're going to have for lunch next Thursday? (Subjects typically said they did not.) Okay, do you think they're going to have hot dogs for lunch next Thursday? Now I want to find out how sure you are that they are (are not) going to have hot dogs. If this box means you're just a little bit sure...etc....., how sure are you that they're going to have (not going to have) hot dogs for lunch next Thursday?

If subjects appeared to have difficulty with the concept of "sure", they were asked more questions (e.g., Will it rain next Monday?) until they appeared to be able to use the scale appropriately. "How many people" scale was also demonstrated by asking how many people liked ice cream and how many liked the subject's disliked food. Two additional scales, "nice/un-nice" and "smart/un-smart", were not demonstrated. Even first graders appeared to be able to grasp the general idea that different size boxes stood for different amounts of liking or sureness or for different numbers of people.

"Imagine-Self" Task: Next the experimenter told the subjects:

The first thing I'm going to do is play you one of my stories, but I'm not going to play the whole story. I'm just going to play half of it. Then I want you go pretend that you're in the story, and I'm going to ask you what you think you would do if you were in this story.

For half the six subjects in each age group x target x sex condition the experimenter then played part of the ulterior motive opinion conformity story, while the other half heard part of the ulterior motive favor story. Thus, overall 72 subjects imagined themselves in each story. The stories were played to the point where the teacher announced who would be the director of the play or the captain of the kickball team (see asterisks in story texts). The experimenter then turned off the story tape, put a blank tape into the recorder, and said:

Now, what I want you to do is this: Pretend that you're in Mrs. Rudman's (Miss Louis's) class and that you hear her say that (appropriate target name) will be the director (captain) and will pick who's in the play (on the team). Pretend like you really, really, really want to be Rudolph the Red-Nosed Reindeer in the play (want to be on the kickball team). What do you think you would do to get (appropriate target name) to pick you to be Rudolph (to be on the team)?

Subjects' free responses were recorded on tape for later transcription. They were encouraged to think of as many ways to get the target to pick them as they could. Then the experimenter told them:

All right. Now I'm going to play the rest of the story on my tape. It's about another little girl (boy) named (ingratiator name) and what she (he) did when she (he) wanted to be Rudolph (wanted to be on the team).

The rest of the first ulterior motive story was then played.

Comprehension Questions: When the whole story had been heard, the experimenter asked a series of comprehension questions to make sure subjects understood the basic elements of the story. Comprehension questions were asked after each of the other three stories as well. The exact wording of these questions is included in Appendix A.

Briefly, for the ulterior motive stories, subjects were asked which character really, really wanted to play Rudolph or be on the kickball team and which character was going to be the director or captain. Pictures of the characters remained in front of the subjects during these and all subsequent questions. For the opinion conformity stories, subjects were asked which kind of material the target had said he or she preferred and which kind of material the ingratiator liked before the target said anything. For peer target stories, subjects were asked which character was the one most people did or did not like. For all stories, subjects were asked what the ingratiator did at the very end of the story. If subjects made errors on any of these comprehension questions, they were told to listen very carefully; the story was replayed; and the questions were asked again. Only six first graders and three third graders required an additional hearing of any story.

Free Response Explanation of Ingratiator's Behavior:

After subjects had successfully answered the last comprehension question, "What did (ingratiator name) do right at the end of the story?" The experimenter continued with the question, "Why

did (ingratiator name) say that, do you think?" (All stories concluded with a verbalization by the ingratiator.) Subjects who responded to this first question were allowed to finish their explanation, then were asked, "Do you think there were any other reasons?" Subjects who did not respond to the initial question were prompted with the probe, "Do you think he/she just said that for no reason at all--didn't he/she have some kind of reason?" This usually elicited an affirmative response, which was followed by the question, "What reason do you think he/she had for (description of appropriate ingratiating act)?" Subjects almost invariably were able to produce some reason for the ingratiator's behavior. Only first graders had occasional difficulty, as described in the results section. These responses were recorded on tape and later transcribed.

Scale Questions: After obtaining subjects' free response explanations for the ingratiator's actions, the main dependent measures were obtained using the rating scales described above. For the sake of simplicity, the author uses the terms "the ingratiator" and "the target" in presenting the questions below. The appropriate ingratiator and target names were of course used when the questions were actually asked. The actual text of each question below is preceded by a shorthand paraphrase of the actual question. These paraphrases will be used throughout the paper to refer to the questions themselves.

1. Do you think you would like the target of the ingratiating act?

After what you heard in the story, do you think you

would like (the target) if you met him/her
in real life, or would you not like him/her?

This first question was primarily a check on perception of the high and low status peers and was not asked in the adult target condition.

2. Do you think you would like the person who performed the ingratiating act?

After what you heard in the story, do you think you would like (the ingratiation) if you met him/her in real life, or would you not like him/her?

3. Will the target like the ingratiation after the act is performed?

Do you think that (the target) would like (the ingratiation) at the end of this story, or would he/she not like him/her?

4. Will the target pick the ingratiation to receive the desired benefit?

Do you think that (the target) will pick (the ingratiation) to be Rudolph the Red-Nosed Reindeer in the play (to be on the kickball team), or will he/she not pick him/her?

(This question was asked only for ulterior motive stories.)

5. Does the ingratiation really like the target?

Do you think (the ingratiation) really likes (the target), or does he/she not like him/her?

6. Will the ingratiation repeat the act to a "regular kid" when there is no ulterior motive present?

For this and the following question, separate scenarios were constructed for each story:

UM/UPCon: Okay, now let's pretend that it's a whole different day. This day is after Christmas vacation, so the play is already all over with. On this different day after the play (the target) goes out of the room for a while. Now, here's another kid in the class named Janie/Sam. He/she's just a regular kid in the class. Okay, pretend that on this different day after the play, (the ingratiator) hears Janie/Sam say, "I think paper is better to make costumes with." Do you think that (the ingratiator) would tell Janie/Sam that he/she thought the paper was better for costumes, too, or would (the ingratiator) say something different on this different day?

NUM/OpCon: Okay, now let's pretend that it's a whole different day later on in the year. (The target) goes out of the room for a while. Now, here's another kid in the class, named Susie/Jimmy. He/she's just a regular kid in the class. Okay, pretend like on this different day (the ingratiator) hears Susie/Jimmy say, "I think that construction paper is better to make snowflakes." Do you think that (the ingratiator) would tell Susie/Jimmy that he/she thought the construction paper was better, too, or would (the ingratiator) say something different on this different day?

UM/Favor: Okay, now let's pretend that it's a whole different day, on this day it's raining and nobody can go outside. Now, on this different day (the target) goes out of the room for a while. Now here's another kid in the class, named Rachel/Jeffrey. He/she's just a regular kid in the class. Now pretend that on this different day (the ingratiator) hears Rachel/Jeffrey say, "I can't find my pencil!" Do you think that (the ingratiator) would give his/her pencil to Rachel/Jeffrey, or would he/she not give the pencil?

NUM/Favor: Okay, now let's pretend that it's a whole different day, and that on this different day (the target) goes out of the room for a while. Now, here's another kid in the class. His/her name is Janet/Richard, and he/she's just a regular kid in the class. Now pretend that (the ingratiator) hears Janet/Richard say, "Oh. I can't find any paper!" Do you think that (the ingratiator) would give his/her paper to Janet/Richard, or would he/she not give the paper?

7. Will the ingratiator repeat the same act to the same target when there is no ulterior motive present?

Now, let's pretend that later on this different day (the target) comes back into the room. And once again (the ingratiator) hears (the target) say:

UM/OpCon: "I like paper better for costumes." Do you think that on this different day (the ingratia-tor) would tell (the target), "I like paper better, too," or would (the ingratia-tor) say something different to (the target) on a different day?

NUM/OpCon: "I like construction paper better for snowflakes." Do you think that on this different day (the ingratia-tor) would say, "I like construc-tion paper better, too," or would (the ingratia-tor) say something different to (the target) on a differ-ent day?

UM/Favor: "I can't find my pencil." Do you think (the ingratia-tor) would give (the target) his/her pencil again on this different day, or would he/she not give the pencil?

NUM/Favor: "I can't find any paper." Do you think (the ingratia-tor) would give (the target) a piece of paper again on this different day, or would he/she not give the paper?

8. Did the ingratia-tor do a nice thing?

Okay, now let's go back and think about the story again. Do you think (the ingratia-tor) was doing a nice thing when he/she...

UM/OpCon: told (the target) he/she liked paper better for costumes, or was that not such a nice thing to do?

NUM/OpCon: told (the target) he/she liked the construc-tion paper better for snowflakes, or was that not such a nice thing to do?

UM/Favor: gave (the target) his/her pencil, or was that not such a nice thing to do?

NUM/Favor: gave (the target) a piece of paper, or was that not such a nice thing to do?

9. Did the ingratia-tor do a smart thing?

Do you think that what (the ingratia-tor) did in the story was a smart thing to do, or was it not such a smart thing to do?

10. How many other people would behave as the ingratia-tor did?

Okay, now I want you to think about other people who might hear somebody like (the target) say that they...

UM/OpCon: liked paper better to make costumes with. How many other people would do what (the ingratiation) did if they were in the story you heard? How many other people would say they liked paper costumes, too, even if they didn't to start with?

NUM/OpCon: liked construction paper better to make snowflakes. How many other people would do what (the ingratiation) did if they were in the story you heard? How many people would say they liked construction paper, too, even if they didn't to start with?

UM/Favor: couldn't find a pencil. How many other people would do what (the ingratiation) did if they were in the story you heard? How many other people would give (the target) their pencil?

NUM/Favor: couldn't find any paper. How many other people would do what (the ingratiation) did if they were in the story you heard? How many other people would give (the target) their paper?

Rating Scales: Subjects responded to all these measures except the last one on ten-point scales ranging from -5 to +5. Subjects first gave a dichotomous response: like/dislike, nice/un-nice, smart/un-smart, or will-do-it/won't-do-it. They then rated on a five-point scale the degree of like/dislike, certainty that an act would or would not occur, etc. The positive and negative halves of the scale were then combined to form the full ten-point scale for purposes of analysis. The last question (how many other people) was rated on a five-point scale from 1 to 5, since it was clearly inappropriate to have negative numbers of people.

Story Orders: After completing all dependent measures for the first story, subjects heard the three remaining stories and responded to the appropriate dependent measures after each one. Because of the constraint that one of the ulterior motive stories always came first, there were twelve possible orders in which the stories could be presented. Thus, the twelve subjects

in each age group x target condition each received a unique order. Since order was thoroughly counter-balanced, order effects were not analyzed.

Niceness Rankings: After subjects heard all four stories, their final task was to rank order the four ingratators in terms of their niceness. The pictures of the four ingratators were laid out side by side, and the subjects were reminded in which of the four stories each ingratator had appeared. They were then asked to pick which ingratator was the very nicest one of all. That picture was removed, and they were asked which of the three remaining ingratators was the least nice. This picture was removed, and they were asked which of the remaining two ingratators was the nicer. In this way, the ingratators were ranked from one to four in order of niceness.

Debriefing: Before children returned to their classroom, the experimenter thanked them very much for the help they had given her and told them they had done very well on her questions. She then told them:

Just one last thing I'd like to ask you. I really, really want to keep these stories a secret so they'll be a surprise for the other kids I tell them to. It wouldn't be fair for some people to know all about the stories before they answered the questions, so please don't tell anybody about what was in the stories. Okay?

As mentioned previously, this request appears to have been honored by the subjects.

Procedure: Adults

The adult procedure was virtually identical to that used for the children. The same stories, questions, and rating scales

were used. The only differences were that the adults were told at the beginning of the experiment that the experimenter intended to use the same materials for children, which was why they were so absurdly simple. Also, when adults performed the "imagine-self task," they were told to imagine:

that you're a grade school child with a grown-up mind. In other words, you may be little, but you know everything you know now. So don't tell me how you think a real child might respond to the situation in the story. Tell me how you would respond knowing everything that you as an adult know.

Adults were, of course, debriefed in greater detail than children. The hypotheses under study were explained in full, and once again, subjects were asked please not to discuss the study until sufficient time had elapsed to permit its completion.

CHAPTER III

RESULTS

Summary of Design and Analyses

The ten scale questions, described above, were analyzed in ten 4 (age group) x 2 (sex) x 3 (target) x 2 (type of act) x 2 (presence or absence of ulterior motive) univariate analyses of variance, the results of which are reported below in four sections. The first section covers the manipulation check on subjects' liking for the high and low status peer targets. The second section covers those measures dealing with subjects' evaluations of the ingrating acts: (1) subjects' liking for the ingrating acts; (2) ratings of the niceness of the ingrating acts; and (3) rankings of the four ingrating acts in order of niceness. The third section deals with four measures relating to subjects' perceptions of the intentions and dispositions of the ingrating acts: (1) ratings of the ingrating acts' liking for the targets of the ingrating acts; (2) and (3) ratings of the likelihood that the act would be repeated to the same target and to a "regular kid"; and (4) ratings of the number of

other people who would do what the ingratiator did. The fourth section covers three measures related to the impact the ingratiating acts were expected to have on the targets: (1) ratings of the targets' liking for the ingratiators after the acts were performed; (2) ratings of the likelihood that the ulterior motive ingratiators would be chosen to receive the benefit they desired; and (3) ratings of the smartness of the ingratiating acts.

For each rating scale measure, results obtained from the adult control group were analyzed separately in 2 (sex) $\times$ 3 (target) $\times$ 2 (act) $\times$ 2 (motive) univariate analyses of variance. The results of these adult control analyses are reported in detail when they reveal information about adult responses that is not adequately reflected by the overall analyses of variance. These separate discussions of the adult data reflect the dual function of the adult control group in this experiment. In the overall analyses it is treated as a real experimental group, and the degree to which its responses do or do not differ from the responses of the younger age groups is discussed. The adult control data also served as a manipulation check, allowing the experimenter to confirm that the stories used in the study did successfully manipulate the parameters they were supposed to. This is the purpose of reporting analyses of the adult data alone.

Finally, the fifth and sixth sections of this chapter report descriptive statistics on subjects' free response explanations for the ingratiators' acts and on subjects' ideas about

what they themselves might do if they wanted to be chosen to receive the benefits described in the ulterior motive stories.

Manipulation Check

"Do you think you would like the target of the ingratiating act?"

As mentioned above, one of the comprehension questions in the two peer target conditions was a query as to which of the story characters was the one that nobody/everybody liked. All subjects responded correctly to this question before the rest of the dependent measures were administered, and not even first graders had any difficulty indicating the appropriate picture. The "Do you like the target?" question was thus a double check on the impact of the manipulation, and not the sole indication that target status had been correctly perceived. This question was asked only in the peer target conditions since it seemed neither sensible nor productive to ask subjects whether they would like the Adult target.

Results of the analysis of variance on this item are summarized in Table 1 (following page). The table shows that the main effect for target status was highly significant indicating that subjects thought they would like the low status peer ($\bar{x} = 1.39$) significantly less than the high status peer ($\bar{x} = 3.66$). Table 1 also shows a significant main effect for sex, indicating that females ($\bar{x} = 3.00$) thought they would like the targets better than males ($\bar{x} = 2.05$). This main effect for sex was qualified, however, by an interaction between sex of

Table 1. Summary of Analysis of Variance of
Ratings of Subjects' Liking for the Target
of the Ingratiating Act.

Source	df	MS	F	p*
Age Group (A)	3	28.59	2.05	---
Sex (B)	1	87.21	6.24	.015
Target Status (C)	1	492.77	35.28	.00001
AxB	3	4.18	.30	---
AxC	3	10.21	.73	---
BxC	1	16.25	1.16	---
AxBxC	3	11.94	.85	---
Error	80	13.97		
Type of Act (D)	1	11.00	3.30	---
AxD	3	4.07	1.22	---
BxD	1	15.44	4.64	.034
CxD	1	9.07	2.72	---
AxBxD	3	7.78	2.33	---
AxCxD	3	2.01	.61	---
BxCxD	1	1.90	.57	---
AxBxCxD	3	.52	.16	---
Error	80	3.33		
Motive (E)	1	2.84	1.09	---
AxE	3	5.23	2.01	---
BxE	1	.13	.05	---
AxBxE	3	.75	.29	---
CxE	1	1.15	.44	---
AxCxE	3	1.74	.67	---
BxCxE	1	6.25	2.41	---
AxBxCxE	3	.12	.04	---
Error	80	2.60		
DxE	1	.94	.48	---
AxDxE	3	.28	.19	---
BxDxE	1	.003	.001	---
AxBxDxE	3	1.30	.66	---
CxDxE	1	.59	.30	---
AxCxDxE	3	1.00	.50	---
BxCxDxE	1	3.96	2.01	---
AxBxCxDxE	3	.45	.23	---
Error	80	1.97		

*In this and all subsequent ANOVA summary tables, p values are reported only if they are at or below the .05 level.

subject and type of ingratiating act. The means for this interaction are shown in Table 2.

The table shows that the lowered liking for the target among males is due primarily to these subjects' responses to the target in the opinion conformity condition. This apparent effect of the ingratiator's action upon male subjects' liking for the target of this action may be due to the fact that in the opinion conformity condition, the opinion expressed by the target had to do with the relative merits of arts and crafts materials provided by the teacher. Some subjects mentioned in their free responses that the target of the opinion conformity seemed to be complaining about the materials the teacher had made available. Also, in the OpCon/UM story, the opinion expressed by the target of the opinion conformity was that paper costumes were preferable to cloth ones because they were easier. This inspired disapproving responses in a number of subjects who thought cloth costumes would be better and who felt that the target of the opinion conformity was trying to take the easy way rather than the best one. Factors such as these may have reduced subjects' liking for the opinion conformer's target, particularly among males, who may have been more concerned than females with the task relevant aspects of the story situations.

Subjects' Evaluations of the Ingratiators

Predictions

It was predicted from the logical attributional analysis

Table 2. Subjects' Liking for the Target: Sex x Act.

Sex	Type of Act	
	OpCon	Favor
Male	1.68	2.42
Female	3.03	2.97

that subjects' evaluations of the ingratators should show motive main effects and target by motive interactions due to doubts about the ingratators' true dispositions when there is an obvious ulterior motive for a nice or agreeable act or when the status of the target of this act is very high. For younger children, however, nice or agreeable acts directed at the very high status target (the teacher) should be regarded very positively regardless of the motive manipulation.

Information pertaining to subjects' evaluations of the ingratators was expected to come from three dependent measures: (a) The scale responses to the question "Do you think you would like the ingratator?" (b) The scale responses to the question "Do you think the ingratator did a nice thing?" (c) The ranking of the four ingratators in order of niceness. This section will examine the data from these three sources and then summarize the general pattern of evaluation results.

Do you think you would like the person who performed the ingratating act?

Adult control results. A summary of the results of the analysis of variance of ratings of liking for the ingratator given by the adult control group is shown in Table 3. The table shows a highly significant main effect for type of act, indicating that favor-doers were liked better ($\bar{x} = 2.54$) than opinion conformers ($\bar{x} = -.31$). The significant main effect for motive indicated that, as predicted, no ulterior motive ingratators were liked better ($\bar{x} = 1.56$) than were ulterior motive ingratators ($\bar{x} = 1.68$). These main effects were qualified in a

Table 3. Summary of Analysis of Variance of Adult
Control Ratings of Liking for the Ingratiator.

Source	df	MS	F	p
Age Group (A) Adults only-		---	---	---
Sex (B)	1	12.84	1.38	---
Target Status (C)	2	24.19	2.60	---
AxB	-	---	---	---
AxC	-	---	---	---
BxC	2	6.03	.65	---
AxBxC	-	---	---	---
Error	30	9.30		
Type of Act (D)	1	291.84	72.38	.00001
AxD	-	---	---	---
BxD	1	2.00	.50	---
CxD	2	1.19	.30	---
AxBxD	-	---	---	---
AxCxD	-	---	---	---
BxCxD	2	3.53	.88	---
AxBxCxD	-	---	---	---
Error	30	4.03		
Motive (E)	1	27.56	7.53	.010
AxE	-	---	---	---
BxE	1	.17	.05	---
AxBxE	-	---	---	---
CxE	2	9.33	2.55	---
AxCxE	-	---	---	---
BxCxE	2	2.53	.69	---
AxBxCxE	-	---	---	---
Error	30	3.66		
DxE	1	18.06	6.27	.018
AxDxE	-	---	---	---
BxDxE	1	.34	.12	---
AxBxDxE	-	---	---	---
CxDxE	2	23.08	8.01	.002
AxCxDxE	-	---	---	---
BxCxDxE	2	.11	.04	---
AxBxCxDxE	-	---	---	---
Error	30	2.88		

significant act x motive interaction, which was further qualified in a significant target x act x motive interaction, as shown in Table 4 below.

The significant act x motive interaction was due to generally larger effects of motive when the act was a favor, but as Table 4 shows, the large effects of motive in the favor condition are due mostly to very low evaluation of the UM favor-doer when the target was a low status peer (LSP). Also, relatively high liking for the NUM opinion conformer whose target was a high status peer (HSP) produced a significant motive effect in this cell, an exception to the general finding that different motives did not produce different liking ratings when the act was opinion conformity.

These findings are more or less in line with the attribution theory based predictions outlined above, though the general form of the target x act x motive interaction is not exactly as expected based on an attributional analysis. It was predicted that the effects of motive would be strongest when the target was a low status peer because of the very high salience of an explicit ulterior motive in this target condition. The effects of motive would be weakest in the adult target condition because of the extrinsic benefits implied by the target's very high status even when no explicit ulterior motive is present. For the same reason, it was also expected that liking for no ulterior motive ingratiators who directed their actions toward an adult target would be lower than liking for the other no ulterior motive ingratiators. In the favor condition, this

Table 4. Adult Control Group Liking for Ingratiator:
Target x Act x Motive.

Act	Motive	Target		
		LSP	HSP	Adult
OpCon	UM	- .50 ^a	- .50 ^a	- .17 ^a
	NUM	-1.25 ^{ab}	1.00 ^b	- .42 ^{ab}
Favor	UM	- .17 ^a	3.00 ^c	2.42 ^c
	NUM	3.67 ^c	3.92 ^c	2.42 ^c

Means with no common superscripts are significantly different, $p < .05$, according to Newman-Keuls comparisons. In this and subsequent tables, consistency of superscripts is maintained only within groups of logical comparisons; i.e., across levels of one factor within levels of any other factor.

predicted pattern of effects was generally substantiated, although liking for the NUM favor-doer who behaved toward an adult was only insignificantly lower than liking for the other NUM favor-doers.

In the opinion conformity condition, however, the expected strong effects of motive did not show up when the target was a low status peer. In fact, the NUM opinion conformer was rated least positively when the target was a low status peer. The direction of the motive main effect was also slightly reversed in the adult target condition, though the effects of motive were smallest here, as predicted. Again, liking for the NUM ingratiation in the adult target condition was not significantly different than liking for the other NUM ingratiation. Adults appeared to feel that they would not like any of the opinion conformers, except the one who conformed to a high status peer with no ulterior motive.

Overall analysis. Table 5 shows the summary of the analysis of variance of all four age groups' ratings of their liking for the ingratiation. As the table shows, there were significant main effects for age group, type of act, and motive, all of which were qualified in a number of two- and three-way interactions. The age group main effect, shown in Table 6, indicates that first graders gave the highest liking ratings of any of the four groups; adults gave the lowest liking ratings; and third and fifth graders gave intermediate ratings. The act main effect, shown in Table 7, indicated that favor-doers were liked considerably better than opinion conformers. The motive

Table 5. Summary of Analysis of Variance of Overall
Analysis of Ratings of Subjects' Liking
for the Ingratiator.

Source	df	MS	F	p
Age Group (A)	3	157.34	15.19	.0001
Sex (B)	1	2.51	.24	---
Target Status (C)	2	7.11	.69	---
AxB	3	3.77	.36	---
AxC	6	27.85	2.69	.017
BxC	2	.002	.002	---
AxBxC	6	3.12	.30	---
Error	120	10.36		
Type of Act (D)	1	342.25	84.15	.00001
AxD	3	31.17	7.66	.0001
BxD	1	4.00	.98	---
CxD	2	2.88	.70	---
AxBxD	3	2.04	.50	---
AxCxD	6	9.60	2.36	.034
BxCxD	2	1.52	.37	---
AxBxCxD	6	2.20	.54	---
Error	120	4.07		
Motive (E)	1	15.34	5.78	.018
AxE	3	4.45	1.67	---
BxE	1	.34	.13	---
AxBxE	3	3.96	1.49	---
CxE	2	25.50	9.60	.0001
AxCxE	6	.81	.30	---
BxCxE	2	2.92	1.10	---
AxBxCxE	6	1.70	.64	---
Error	120	2.66		
DxE	1	26.69	6.42	.013
AxDxE	3	15.84	3.81	.012
BxDxE	1	.69	.17	---
AxBxDxE	3	1.70	.41	---
CxDxE	2	15.21	3.66	.029
AxCxDxE	6	7.25	1.74	---
BxCxDxE	2	.12	.03	---
AxBxCxDxE	6	2.11	.51	---
Error	120	4.16		

Table 6. Liking for the Ingratiator: Age Group x Target x Act.

Age Group	LSP		HSP		Adult		Age Group Main Effect
	OpCon	Favor	OpCon	Favor	OpCon	Favor	
1st grade	3.00 ^a	4.54 ^b	3.33 ^a	2.95 ^{ab}	3.79 ^a	4.46 ^{ab}	3.68 ^m
3rd grade	3.29 ^a	4.00 ^{ab}	1.17 ^{ac}	2.58 ^{ab}	1.71 ^c	3.00 ^b	2.63 ^{mn}
5th grade	2.62 ^a	3.33 ^{abe}	1.83 ^{ac}	3.79 ^b	.79 ^{cd}	3.41 ^b	2.63 ^{mn}
Adult	-.88 ^d	1.75 ^e	.25 ^{cd}	3.46 ^{be}	-.30 ^d	2.42 ^{be}	1.12 ⁿ

Means having no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

Table 7. Liking for the ingratiation: Age group
x Act x Motive.

Age Group	OpCon		Favor	
	UM	NUM	UM	NUM
1st grade	2.97 ^{ad}	3.78 ^a	4.06 ^b	3.92 ^{abc}
3rd grade	2.53 ^{ad}	1.58 ^b	2.61 ^{ab}	3.78 ^c
5th grade	1.77 ^d	1.72 ^{bd}	3.31 ^{ab}	3.72 ^{bc}
Adult	-.38 ^e	-.22 ^e	1.75 ^a	3.33 ^c
Act Main Effect	1.72		3.31	

Means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

main effect indicated that, overall, no ulterior motive ingratators were liked slightly better ($\bar{x} = 2.70$) than ulterior motive ingratators ($\bar{x} = 2.33$).

Tables 6, 7, and 8 show means for the age group x target x act interaction, the age group x act x motive interaction, and the target x act x motive interaction, respectively. As the summary of the analysis of variance shows, these three-way interactions modify significant two-way interactions between age group and target, age group and type of act, target and type of act, and act and motive.

Examination of the age group x target x act interaction in Table 6 shows that the act main effect is generally weak or absent among first graders, who did not view opinion conformity nearly so negatively as the other groups. This produced the significant age group x act interaction. The target x act interaction was due to relatively high liking for an opinion conformer whose target was a low status peer. However, as Table 6 shows, this modification of the act main effect was primarily due to the responses of third and fifth graders. In the low status peer condition, third and fifth graders did not express lowered liking for the opinion conformer relative to the favor-doer to the extent that they did when the target was a high status peer or an adult. The age group x target interaction indicated that the main effect for age group was much attenuated in the high status peer condition. Table 6 shows that this was due to responses to the favor-doer whose target was a high status peer. High liking for this ingratator among adults and

Table 8. Liking for the Ingratiator: Target x Act
x Motive.

Target	OpCon		Favor	
	UM	NUM	UM	NUM
LSP	1.94 ^a	2.08 ^{ac}	2.71 ^{ad}	4.10 ^b
HSP	1.13 ^a	2.17 ^c	2.90 ^{cd}	3.50 ^{bd}
Adult	2.10 ^a	.90 ^c	3.19 ^d	3.46 ^{bd}

Means having no superscripts in common differ at the $p < .05$ level according to Newman-Keuls comparisons.

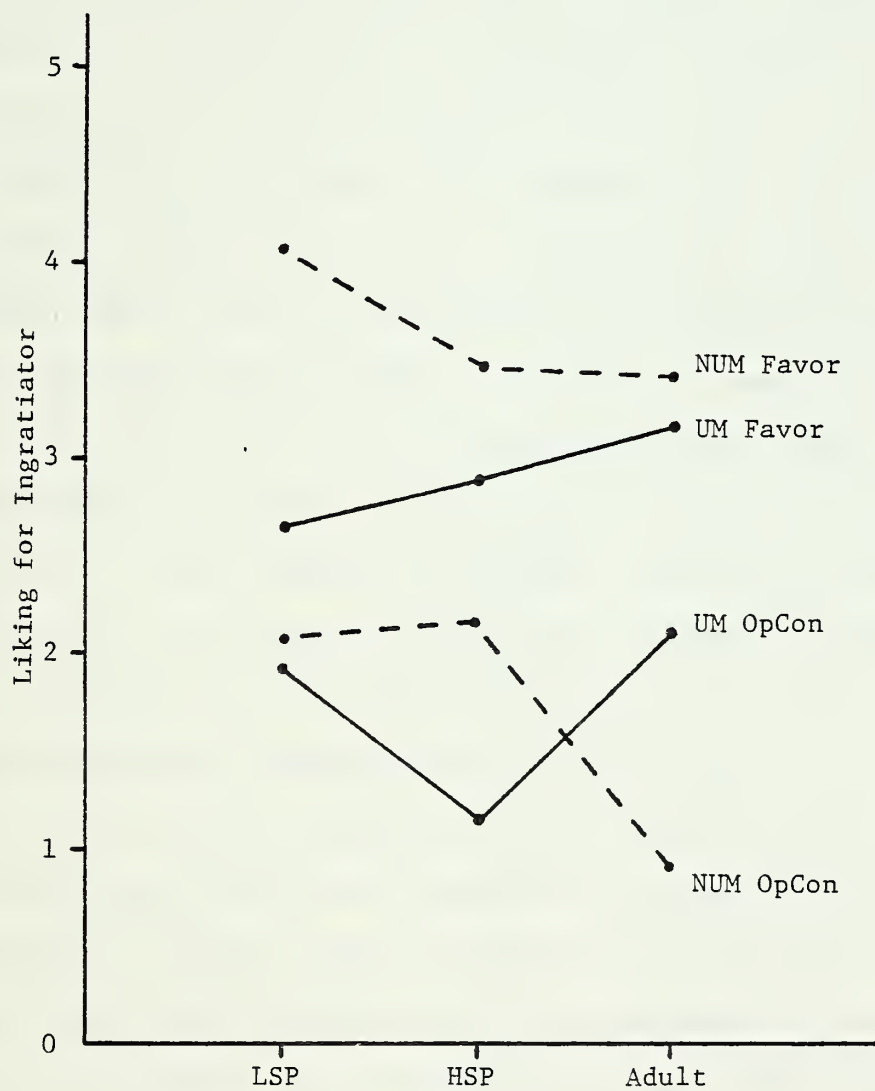


Figure 2. Liking for the Ingratiator. Target x Act x Motive.

relatively low liking among first graders resulted in the obliteration of age group effects.

The act x motive interaction indicated that the no ulterior motive ingratiation was liked better than the ulterior motive ingratiation only when the act was a favor, and the age group x act x motive interaction shown in Table 7 indicated that these significant differences in liking for the favor-doers as a function of motive were primarily due to adults and third graders. The difference among fifth graders was in the direction of the main effect, but was not significant, while among first graders there were no differences in liking for the differently motivated favor-doers. All age groups liked the NUM favor-doer quite well, so that there were no significant differences among age groups in this cell. Table 7 also shows that, when the act was opinion conformity, there were significant differences in liking as a function of motive among third graders, who showed a significant reversal of the main effect.

Table 8 and its accompanying figure (Figure 2) show that the target x act x motive interaction was due to differences in liking ratings within act as a function of target and motive. When the act was a favor, the no ulterior motive ingratiation was liked better than the ulterior motive ingratiation only when the target was a low status peer. When the target was a high status peer or an adult, differences in liking as a function of motive did not reach significance, though they were in the same direction as the main effect. When the act was opinion conformity,

differences in liking as a function of motive were not significant when the target was a low status peer. When the target was a high status peer, the NUM ingratiator was significantly better liked. However, when the target was an adult, the motive main effect was significantly reversed so that subjects rated the opinion conformer with an obvious ulterior motive more highly than the opinion conformer with no obvious ulterior motive.

"Did the ingratiator do a nice thing?"

Adult control. Results from the adult control showed only main effects for act and motive highly similar to those appearing in the overall analysis. Separate discussion is therefore omitted.

Overall analysis. A summary of the analysis of variance of ratings of the niceness of the ingratiator's act is shown in Table 9. The table indicates that there were significant main effects for age group, act, and motive. The age group main effect, shown in Table 10, indicates that first graders rated the ingratiating acts as significantly nicer than any of the three older groups, which did not differ among themselves. Table 10 also shows the motive main effect, which indicates that no ulterior motive acts were rated nicer than ulterior motive acts. The act main effect, which appears in Table 11, indicates that favors were rated nicer than opinion conformity.

Table 9 indicates that there was a significant

Table 9. Summary of Analysis of Variance of Overall
Analysis of Ratings of the Niceness of the
Ingratiating Act.

Source	df	MS	F	p
Age Group (A)	3	215.36	17.03	.00001
Sex (B)	1	.01	.001	---
Target Status (C)	2	.04	.003	---
AxB	3	11.23	.89	---
AxC	6	12.28	.97	---
BxC	2	19.04	1.51	---
AxBxC	6	20.09	1.59	---
Error	120	12.64		
Type of Act (D)	1	1743.06	236.17	.00001
AxD	3	54.19	7.34	.0002
BxD	1	9.00	1.22	---
CxD	2	9.41	1.28	---
AxBxD	3	13.16	1.78	---
AxCxD	6	16.49	2.23	.044
BxCxD	2	21.47	2.91	---
AxBxCxD	6	9.92	1.34	---
Error	120	7.38		
Motive (E)	1	91.84	20.97	.00001
AxE	3	15.36	3.51	.018
BxE	1	1.00	.23	---
AxBxE	3	3.31	.75	---
BxCxE	2	10.99	2.51	---
AxCxE	6	4.51	1.03	---
BxCxE	2	.67	.15	---
AxBxCxE	6	4.05	.92	---
Error	120	4.38		
DxE	1	4.69	.78	---
AxDxE	3	3.39	.57	---
BxDxE	1	.84	.14	---
AxBxDxE	3	6.60	1.10	---
CxDxE	2	3.14	.52	---
AxCxDxE	6	5.04	.84	---
BxCxDxE	2	6.62	1.11	---
AxBxCxDxE	6	7.65	1.28	---
Error	120	5.98		

Table 10. Niceness of the Ingratiating Act. Age Group x Motive.

Age Group	Motive		Age Group Main Effect
	UM	NUM	
1st grade	3.49 ^a	3.47 ^a	3.48 ^m
3rd grade	1.28 ^b	1.85 ^{bc}	1.56 ⁿ
5th grade	.40 ^b	1.75 ^c	1.08 ⁿ
Adult	- .03 ^b	1.42 ^c	.69 ⁿ
Motive Main Effect	1.29	2.12	

Means having no superscripts in common differ at the $p < .05$ level according to Newman-Keuls comparisons.

age group x motive interaction in the niceness ratings and a significant age group x act interaction that was qualified by an age group x target x act interaction. The age group x motive interaction, shown in Table 10, was due to qualification of the motive main effect as a function of age. Neither first nor third graders rated the ingratiating acts differently as a function of motive, while fifth graders and adults both rated the no ulterior motive act significantly nicer.

The age group x act interaction indicated that the age group main effect appeared strongly in the opinion conformity condition, but was attenuated in the favor condition, because first graders showed the act main effect to a lesser extent than the other groups. They did not rate opinion conformity as significantly less nice than favor doing. The age group x target x act interaction in Table 11 indicates that the attenuation of the age group main effect in the favor condition was particularly pronounced when the target was a high status peer. All age groups gave virtually identical ratings of niceness to favors directed at the high status peer targets.

Rank Ordering the Ingratiators by Niceness

The main goal of the rank ordering task was to double check subjects' evaluations of the motives of the ingratiators. Though they might rate two different ingratiators as equally nice or likeable on the scales from -5 to +5, it was still possible that, when forced to choose which was nicest, they might show reliable motive effects. However, as can be seen

Table 11. Niceness of the Ingratiating Act: Age Group x
Target x Act.

Age Group	LSP		HSP		Adult	
	OpCon	Favor	OpCon	Favor	OpCon	Favor
1st grade	2.21 ^a	4.13 ^b	2.87 ^a	4.21 ^{ab}	2.67 ^{ad}	4.79 ^b
3rd grade	-.33 ^{cd}	4.08 ^b	-1.63 ^{cd}	3.50 ^b	.58 ^{de}	3.17 ^b
5th grade	-.34 ^c	2.50 ^b	-.50 ^c	3.83 ^b	-2.04 ^c	3.00 ^b
Adult	-1.17 ^c	2.21 ^b	-1.83 ^c	3.46 ^b	-1.42 ^{ce}	2.88 ^b

Means with no common superscripts differ significantly at the $p < .05$ level according to Newman-Keuls comparisons.

in Table 12 and its accompanying figure (Figure 3), the niceness rankings simply echo the age group x motive interaction seen in the niceness rating data displayed in Table 11. Inspection of the niceness rankings reveals a very large effect for type of act, no differentiation by motive among first or third graders, and considerable differentiation by motive among fifth graders and adults. The target toward whom the ingratiating act was directed had no appreciable effects on this general pattern of mean rankings as is seen in Appendix B, Table 1.

Summary of Subjects' Evaluations of the Ingratiators

Age group x act effects. In general, examination of subjects' liking for the ingratators indicated that the type of ingratiating act had a much larger impact on subjects' evaluations than any other factor. Opinion conformers were evaluated much less positively than favor-doers regardless of the presence or absence of an ulterior motive and regardless of the target toward whom the act was directed. Among first graders this effect was less pronounced. These younger children were quite favorably disposed toward the ingratators regardless of act.

Age group x motive effects. First graders were also generally and undifferentially positive about the ingratators regardless of motive, but all three of the older age groups did show motive effects. Third graders liked a no ulterior motive favor-doer better than an ulterior motive favor-doer and an ulterior motive opinion conformer better than a no ulterior

Table 12. Rank Ordered Niceness of the Ingratiators:
Age Group x Act x Motive.

Act	OpCon		Favor	
	UM	NUM	UM	NUM
Motive	UM	NUM	UM	NUM
Age Group				
1st grade	3.31	3.39	1.58	1.72
3rd grade	3.19	3.28	2.00	1.53
5th grade	3.50	2.86	2.39	1.25
Adult	3.61	2.72	2.47	1.19

Ingratiators were ranked from 1 (nicest) to
4 (least nice).

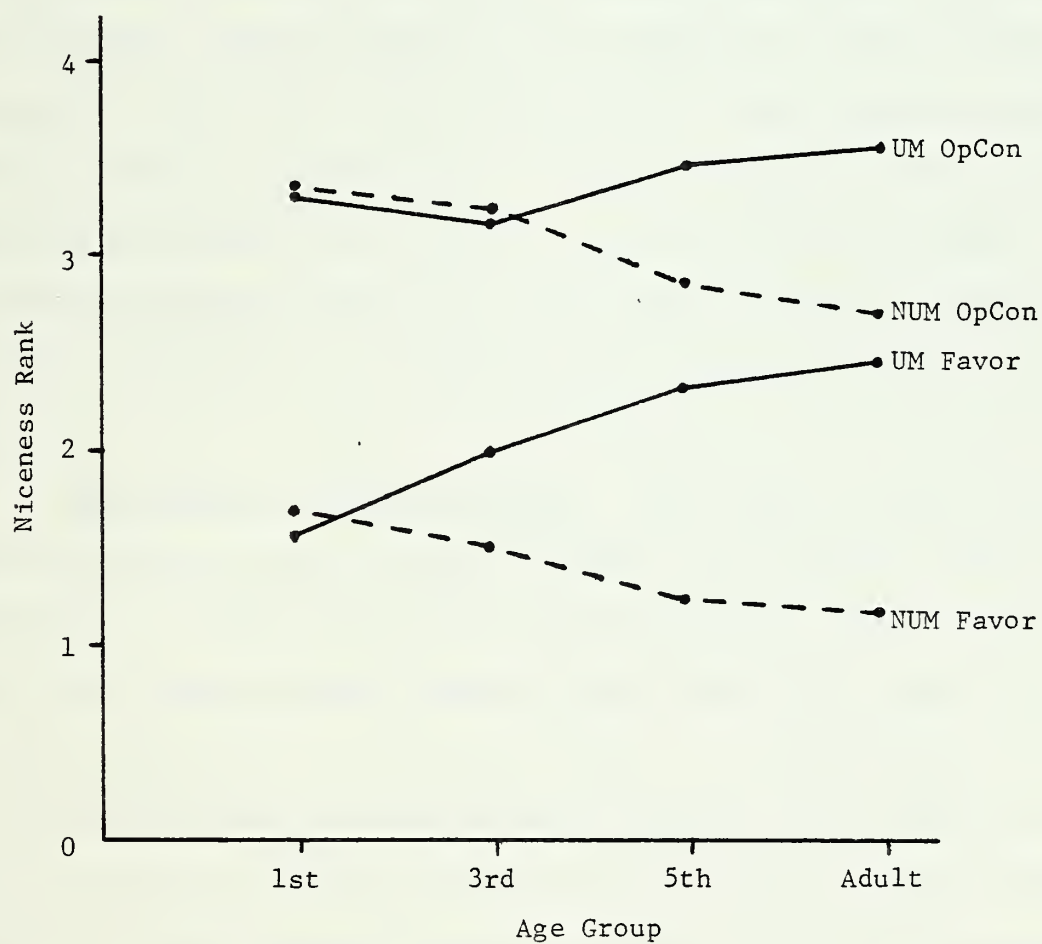


Figure 3. Rank Ordered Niceness of the Ingratiators. Age Group x Act x Motive.

motive opinion conformer although they apparently did not regard the differently motivated actions as differentially nice since neither their niceness ratings nor their niceness rankings showed any motive effects. Fifth graders, on the other hand, showed no significant motive effects in their liking for the ingratiators, but they did differentiate by motive in both their niceness ratings and their niceness rankings. As described previously, adults showed motive effects in their liking ratings for the favor-doers who directed their actions toward low status peers and in their liking ratings for the ingratiators who directed their actions toward high status peers. They also showed motive effects in both their ratings of niceness and their rankings of the ingratiators along a niceness continuum.

Age group x target effects. The target toward whom the ingratiating act was directed had some differential effects on evaluations of the ingratiators among subjects of different age groups, but these target effects were relatively small ones. When the target was a low status peer, the main effect for act in the liking ratings was attenuated among third and fifth graders who liked an opinion conformer fairly well in this target condition. The niceness ratings, however, did not show the same attenuation. Thus, it appears that third and fifth graders liked an opinion conformer better when the target was a low status peer even though they did not think the opinion conformer's act was very nice. When the target was a high status peer, ratings of both liking and niceness showed quite positive

evaluation of the favor-doer among all four age groups, while in the opinion conformity condition first graders were considerably more positive toward the ingratiators than the other age groups, as in the main effect. The pattern of age group means in the adult target condition also resembled the main effect, though the relatively less extreme act effects in the first grade resulted in more pronounced age group differences in the opinion conformity condition. Also, third graders showed the act main effect somewhat less strongly in the adult target condition due to relatively more positive evaluations of opinion conformers when the target was an adult. It had been thought that the younger children might view acts directed at an adult target as even more positive than acts directed at other targets. There was little evidence of any such effect due to the rather indiscriminantly favorable ratings among the youngest subjects.

Target x act x motive effects. The target x act x motive interaction in the liking ratings showed that in the favor condition motive effects appeared that were similar to those that had been predicted based on an attribution theory analysis. Differentiation by motive was greatest when the target was a low status peer and was least when the target was an adult. In the opinion conformity condition, however, an entirely unexpected pattern of results emerged. The ulterior motive opinion conformer was judged relatively leniently when the target of the act was a low status peer or an adult and quite harshly when the target was a high status peer. The no ulterior motive ingratiator was judged fairly leniently when the target

was a low or a high status peer and quite harshly when the target was an adult.

Although the target x act x motive interaction was not significantly qualified by age group, examination of the age group x target x act x motive means, included in Appendix B, Table 2, indicates that the pattern of means among adults contributed heavily to the form of the interaction in the favor condition. The significantly greater liking for the UM over the NUM opinion conformer in the Adult target condition owes much to responses of the three younger age groups.

Intentions and Dispositions Underlying the Ingratiating Act

Predictions

Three scale questions were expected to yield data on subjects' perceptions of the intentions and dispositions underlying the ingratiating acts: the rating of the ingratiator's liking for the target, the rating of the likelihood that the act would be repeated (with no ulterior motive) to the same target, and the rating of the likelihood that the act would be repeated (with no ulterior motive) to a different target (a "regular kid" in the ingratiator's class). It was expected that, if ulterior motive acts were perceived differently than no ulterior motive acts, ratings of the ingratiator's liking for the target and of the likelihood of future repetition of the act should be lower when the initial act was performed with an

obvious ulterior motive present. Also, when there was no obvious ulterior motive, the likelihood that the act would be repeated to a "regular kid" should have declined as the status of the original target increased if subjects indeed perceived high status as implying possible ulterior motives when none were obviously stated.

Also related to subjects' ideas about the intentions and dispositions underlying the act was the measure on the usualness of the act. Attribution theory predicts that acts with a low normative expected valence, that is, acts that would not be expected to be highly desirable to everybody, should elicit more confident dispositional attributions. Thus, the question, "How many other people would behave as the ingratiator did?" was included to explore the relationship, if any, between subjects' ratings of usualness and their predictions of consistency.

"Does the ingratiator really like the target?"

Adult control. Analysis of the adult control data showed main effects for target, act, and motive plus a target x motive interaction that appears below in the age group x target x motive interaction from the overall analysis.

Overall analysis. The summary of the analysis of variance for this item, shown in Table 13, reveals significant main effects for age group, target, act, and motive. The act main effect was unqualified by interactions and showed that favor-doers were seen as liking their targets somewhat

Table 13. Summary of Analysis of Variance of
Overall Analysis of Ratings of the
Ingratiators' Liking for the
Target of the Ingratiating
Act.

Source	df	MS	F	p
Age Group (A)	3	51.75	4.29	.007
Sex (B)	1	22.56	1.87	---
Target Status (C)	2	226.31	18.76	.00001
AxB	3	.34	.03	---
AxC	6	12.21	1.01	---
BxC	2	2.22	.18	---
AxBxC	6	7.21	.60	---
Error	120	12.07		
Type of Act (D)	1	72.25	20.35	.00002
AxD	3	4.87	1.37	---
BxD	1	10.56	2.98	---
CxD	2	3.32	.93	---
AxBxD	3	.51	.14	---
AxCxD	6	3.95	1.11	---
BxCxD	2	3.32	.93	---
AxBxCxD	6	1.43	.40	---
Error	120	3.55		
Motive (E)	1	103.36	27.80	.00001
AxE	3	16.22	4.36	.006
BxE	1	.06	.02	---
AxBxE	3	1.07	.29	---
CxE	2	10.45	2.81	---
AxCxE	6	10.84	2.91	.011
BxCxE	2	1.44	.39	---
AxBxCxE	6	3.37	.91	---
Error	120	3.72		
DxE	1	.25	.07	---
AxDxE	3	4.25	1.17	---
BxDxE	1	.17	.05	---
AxBxDxE	3	4.68	1.28	---
CxDxE	2	1.60	.44	---
AxCxDxE	6	2.40	.66	---
BxCxDxE	2	7.25	1.99	---
AxBxCxDxE	6	2.89	.79	---
Error	120	3.65		

better ($\bar{x} = 2.97$) than opinion conformers liked their targets ($\bar{x} = 2.26$). The age group main effect, shown in Table 14, indicated that there was a more or less linear decrease across the four age groups in liking attributed to the ingratiator, with liking highest among first graders and lowest among adults. The target main effect, also shown in Table 14, indicated that considerably less liking for the target was attributed when the target was a low status peer than when the target was a high status peer or an adult. The motive main effect indicated that greater liking was attributed when the ingratiator had no obvious ulterior motive ($\bar{x} = 3.01$) than when an ulterior motive was present ($\bar{x} = 2.20$). There was a significant age group x motive interaction that was qualified by a significant age group x target x motive interaction shown in Table 14.

As Table 14 shows, first graders showed no effects of motive while the older groups did show such effects. (This produced the age group x motive interaction.) Motive effects occurred predominantly in the low status peer condition for third graders and adults and in the high status peer condition for fifth graders. Thus, third graders and adults generally felt that the ingratiator liked the target reasonably well unless the target was a low status peer and the ingratiator had an obvious ulterior motive. Fifth graders did not seem to think the ingratiators really liked a low status peer even when no ulterior motive was present, but they apparently did take a no ulterior motive act as indicative of very strong liking for a high status peer.

Table 14. Ingratiators' Liking for Targets: Age Group x Target x Motive.

Target Motive Age Group	LSP		HSP		Adult		Age Group Main Effect
	UM	NUM	UM	NUM	UM	NUM	
1st grade	2.87 ^a	2.42 ^a	3.29 ^a	3.38 ^{ab}	4.29 ^{ab}	4.38 ^{ab}	3.44 ^m
3rd grade	.54 ^c	3.17 ^a	2.96 ^a	3.42 ^{ab}	2.83 ^a	3.71 ^{ab}	2.71 ^{mn}
5th grade	.25 ^c	1.16 ^{ac}	2.33 ^a	3.79 ^b	3.00 ^{ad}	3.38 ^{bd}	2.32 ⁿ
Adult	-1.13 ^c	1.54 ^a	2.21 ^a	2.96 ^{ab}	3.04 ^a	3.25 ^{ab}	1.97 ⁿ
Target Main Effect	1.35 ^x		3.00 ^y		3.48 ^y		

"Will the ingratiator repeat the act to the same target when there is no ulterior motive present?"

Adult control. The adult control group showed main effects for act and motive plus a significant sex x target x motive interaction reflected in the higher order interactions involving sex in the overall analysis, below. The sex x target x motive interaction in the adult data indicated that, though the motive main effect (NUM greater than UM) appeared in all sex x target cells, females showed it especially strongly in the low status peer condition.

Overall analysis. The summary of the analysis of variance on this item, shown in Table 15, indicates that there were main effects for target, act, and motive on subjects' ratings of the ingratiators' consistency toward the same target. The age group main effect was only marginally significant, $p < .06$, with the pattern of means showing that first graders ($\bar{x} = 2.35$) thought the ingratiator would be more likely to repeat the act than did the older groups (third grade, $\bar{x} = 1.27$; fifth grade, $\bar{x} = 1.29$; adults, $\bar{x} = 1.69$).

The main effect for target indicated that subjects expected much more consistency to an adult target ($\bar{x} = 2.47$) than to either of the peer targets (LSP, $\bar{x} = 1.12$; HSP, $\bar{x} = 1.27$). Favor-doers ($\bar{x} = 2.01$) were expected to be more consistent than opinion conformers ($\bar{x} = 1.23$); and no ulterior motive ingratiators ($\bar{x} = 2.47$) were expected to be more consistent than ulterior motive ingratiators ($\bar{x} = .78$). Table 15 also shows a significant age group x motive interaction that showed, as usual,

Table 15. Summary of Analysis of Variance of Overall Analysis
of the Likelihood that the Ingratiator Would Repeat the
Ingratiating Act to the Same Target.

Source	df	MS	F	p
Age Group (A)	3	36.96	2.62	---
Sex (B)	1	10.56	.75	---
Target Status (C)	2	106.42	7.56	.001
AxB	3	13.81	.98	---
AxC	6	20.06	1.42	---
BxC	2	.95	.07	---
AxBxC	6	15.98	1.13	---
Error	120	14.08		
Type of Act (D)	1	79.50	11.96	.001
AxD	3	4.68	.70	---
BxD	1	17.36	2.61	---
CxD	2	14.43	2.17	---
AxBxD	3	5.82	.88	---
AxCxD	6	11.07	1.67	---
BxCxD	2	6.12	.92	---
AxBxCxD	6	18.03	2.71	.017
Error	120	6.65		
Motive (E)	1	400.00	58.87	.00001
AxE	3	56.40	8.30	.00005
BxE	1	5.06	.75	---
AxBxE	3	7.55	1.11	---
CxE	2	5.97	.88	---
AxCxE	6	3.89	.57	---
BxCxE	2	2.10	.31	---
AxBxCxE	6	10.61	1.56	---
Error	120	6.80		---
DxE	1	21.01	4.55	.035
AxDxE	3	9.94	2.15	---
BxDxE	1	10.03	2.17	---
AxBxDxE	3	9.36	2.03	---
CxDxE	2	9.10	1.97	---
AxCxDxE	6	13.39	2.90	.011
BxCxDxE	2	2.05	.44	---
AxBxCxDxE	6	13.78	2.98	.009
Error	120	4.62		

increasing effects of motive with increasing age due primarily to decreasing expectations of consistency from the UM ingratiators. This interaction also indicates that third graders seemed to feel that the NUM acts were relatively unlikely to be repeated. The act x motive interaction, shown in Table 15, indicates that the effects of motive were much stronger when the act was a favor. Means for these two interactions are presented in Tables 16 and 17.

The three main effects and two two-way interactions were all qualified in a series of three complex higher order interactions: an age group x sex x target x act interaction, an age group x target x act x motive interaction, and an age group x sex x target x act x motive interaction. Means for the five-way interaction are presented in Appendix B, Table 3. This interaction appears to have been due to a strong reversal of the motive main effect among first-grade males when the target was a high status peer and the act was opinion conformity. This group of subjects thought the ulterior motive actor much more likely to repeat the act than the no ulterior motive actor. Also, among fifth-grade females in the adult target condition, there was an extreme effect of motive in the favor condition and very little effect of motive in the opinion conformity condition. This resulted in a major reversal of the act main effect in the ulterior motive condition, such that UM favor-doers were seen as much less likely to repeat their acts than UM opinion conformers. In addition, there were some modifications of the target main effect in various age group x sex x act x motive

Table 16. Subjects' Ratings of the Likelihood that the
Ingratiating Act Would Be Repeated to the Same Tar-
get: Age Group x Motive.

Age Group	Motive	
	UM	NUM
1st grade	2.18 ^a	2.53 ^a
3rd grade	.79 ^b	1.69 ^a
5th grade	-.18 ^b	2.65 ^a
Adult	.32 ^b	2.99 ^a

Table 17. Subjects' Ratings of the Likelihood that the
Ingratiating Act Would Be Repeated to the Same Target.
Act x Motive.

Act	Motive	
	UM	NUM
OpCon	.58 ^a	1.88 ^b
Favor	.83 ^a	3.05 ^c

Within table, means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

conditions. Most notably, among third-grade males and fifth-grade females, the UM opinion conformer was seen as very unlikely to repeat this act to a high status peer, very likely to repeat it to an adult, and moderately likely to repeat it to a low status peer. These qualifications of lower order effects do not seem to fall into any readily interpretable pattern, however, and no attempt will be made to describe the five-way interaction extensively.

"Will the ingratiator repeat the same act to a 'regular kid' when there is no ulterior motive present?"

Adult control. Summary of the analysis of variance of the adult control data is presented in Table 18. A main effect for act indicated that favor-doers ($\bar{x} = 1.18$) were seen as more likely to repeat their acts than were opinion conformers ($\bar{x} = -.88$). A main effect for motive indicated that the no ulterior motive ingratiators ($\bar{x} = .99$) were seen as more likely to repeat their acts than were the ulterior motive ingratiators ($\bar{x} = -.68$). This motive main effect was qualified by a target x motive interaction, the means for which are displayed in Table 19, below. The interaction shows that motive effects appeared only in the two peer target conditions. When the target was an adult, adult subjects did not expect the no ulterior motive ingratiators to repeat their acts to a regular kid. This is nicely in line with the predictions made on the basis of the attributional analysis of ingratiation.

Table 18. Summary of Analysis of Variance of Adult Control
 Ratings of the Likelihood that the Ingratiating Act
 Would Be Repeated to A Regular Kid.

Source	df	MS	F	p
Age Group (A) Adults Only				
Sex (B)	1	3.36	.33	---
Target Status (C)	2	16.09	1.56	---
AxB	-	---	---	---
AxC	-	---	---	---
BxC	2	7.63	.74	---
AxBxC	-	---	---	---
Error	30	10.29		
Type of Act (D)				
AxD	-	---	---	---
BxD	1	7.11	.89	---
CxD	2	1.92	.24	---
AxBxD	-	---	---	---
AxCxD	-	---	---	---
BxCxD	2	.22	.03	---
AxBxCxD	-	---	---	---
Error	30	8.02		
Motive (E)				
AxE	-	---	---	---
BxE	1	2.78	.67	---
AxBxE	-	---	---	---
CxE	2	17.02	4.12	.026
AxCxE	-	---	---	---
BxCxE	2	1.67	.41	---
AxBxCxE	-	---	---	---
Error	30	4.13		
DxE				
AxDxE	-	---	---	---
BxDxE	1	4.69	.80	---
AxBxDxE	-	---	---	---
CxDxE	2	9.30	1.58	---
AxCxDxE	-	---	---	---
BxCxDxE	2	2.26	.38	---
AxBxCxDxE	-	---	---	---
Error	30	5.88		

Table 19. Adult Control Subjects' Ratings of the
Likelihood that the Ingratiating Act Would Be
Repeated to a Regular Kid: Target x Motive.

Target	Motive	
	UM	NUM
LSP	-.71	1.92
HSP	-.67	1.38
Adult	-.67	- .33

Overall analysis. Summary of the overall analysis of variance is presented in Table 20. The main effect for age group, shown in Table 21, indicates that first graders thought the behavior more likely to be repeated than did the older age groups. The main effect for target, also shown in Table 21, indicated that acts directed toward the low status peer were generally considered more likely to be repeated to a regular kid. The main effect for act, shown in Table 23, indicates that favors were thought more likely to be repeated than were acts of opinion conformity; and the main effect for motive, in Table 22, indicates greater likelihood of repetition when there was no ulterior motive. All main effects were qualified in one or more of the three significant two-way interactions: age group x target, age group x motive, and sex x act.

The age group x target interaction, shown in Table 21, indicates that neither first graders nor adults gave significantly different likelihood ratings as a function of target when motive was not taken into account. First graders thought the ingratiating acts relatively likely to be repeated to a regular kid regardless of original target; adults thought the ingratiating acts relatively unlikely to be repeated to a regular kid. Both third and fifth graders thought it much more likely that the ingratiating act would be repeated to a regular kid when the original target had been a low status peer than when the original target had been a high status peer. Third graders also thought the behavior more likely to be repeated to a regular kid when the original target was an adult than when the original target was a high status peer. Among fifth

Table 20. Summary of Analysis of Variance of Overall Analysis
of Ratings of the Likelihood that the Ingratiating Act
Would Be Repeated to a Regular Kid.

Source	df	MS	F	p
Age Group (A)	3	161.26	11.71	.00001
Sex (B)	1	25.00	1.82	---
Target Status (C)	2	68.54	4.98	.008
AxB	3	25.90	1.95	---
AxC	6	40.03	2.91	.011
BxC	2	5.51	.40	---
AxBxC	6	12.75	.93	---
Error	120	13.77		
Type of Act (D)	1	684.69	95.83	.00001
AxD	3	4.50	.63	---
BxD	1	31.17	4.36	.039
CxD	2	7.67	1.07	---
AxBxD	3	3.52	.49	---
AxCxD	6	7.15	1.00	---
BxCxD	2	2.26	.32	---
AxBxCxD	6	3.82	.53	---
Error	120	7.15		---
Motive (E)	1	240.25	40.26	.00001
AxE	3	30.57	5.12	.002
BxE	1	18.06	3.03	---
AxBxE	3	3.78	.63	---
CxE	2	10.10	1.69	---
AxCxE	6	10.09	1.69	---
BxCxE	2	2.44	.41	---
AxBxCxE	6	5.16	.86	---
Error	120	5.97		---
DxE	1	19.51	3.57	---
AxDxE	3	2.11	.39	---
BxDxE	1	.25	.05	---
AxBxDxE	3	4.92	.90	---
CxDxE	2	8.98	1.64	---
AxCxDxE	6	8.42	1.54	---
BxCxDxE	2	.69	.13	---
AxBxCxDxE	6	1.28	.23	---
Error	120	5.47		---

Table 21. Subjects' Ratings of the Likelihood that the
Ingratiating Act Would Be Repeated to a Regular
Kid, Age Group x Target.

Age Group	Target			Age Group Main Effect
	LSP	HSP	Adult	
1st grade	1.90 ^a	2.67 ^a	2.08 ^a	2.22 ^m
3rd grade	2.00 ^a	-.87 ^b	.94 ^{ac}	.69 ⁿ
5th grade	.98 ^{ac}	-.98 ^b	-.44 ^{bc}	-.15 ⁿ
Adult	.60 ^{ab}	.35 ^b	-.50 ^{bc}	.15 ⁿ
Target Main Effect	1.37 ^x	.29 ^y	.52 ^y	

Means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

Table 22. Subjects' Ratings of the Likelihood that the
Ingratiating Act Would Be Repeated to a Regular Kid:

Age Group x Motive

Age Group	Motive	
	UM	NUM
1st grade	2.04 ^a	2.39 ^{ab}
3rd grade	.35 ^b	1.03 ^{bd}
5th grade	-1.33 ^c	1.04 ^{bd}
Adult	-.68 ^{bc}	.98 ^d
Motive Main Effect	.10	1.36

Means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

Table 23. Subjects' Ratings of the Likelihood that
the Ingratiating Act Would Be Repeated to a
Regular Kid: Sex x Act.

Sex	Act	
	OpCon	Favor
Male	-.40 ^a	2.22 ^b
Female	.30 ^a	1.36 ^c
Main Effect for Act	-.05	1.79

graders likelihood of repetition to a regular kid following ingratiation of an adult target did not differ from likelihood of repetition following ingratiation of a high status peer target.

The age group x motive interaction in Table 22 indicated that neither first nor third graders made significantly different predictions of repetition to a regular kid as a function of the motive underlying the original act, but both fifth graders and adults predicted greater likelihood of repetition when there was no obvious ulterior motive present when the act was originally performed. The sex x act interaction in Table 23 indicates that males showed the main effect for act to a greater extent than females.

"How many people would behave as the ingratiator did?"

Adult control. The adult control group showed main effects for act and motive similar to those described below in the overall analysis. More people were expected to perform favors and ulterior motive acts than opinion conformity and no ulterior motive acts. In addition, a sex x target x act interaction, shown in Appendix B, Table 4, indicated that males showed the main effect for act predominantly in the low status peer condition while females showed it in the high status peer condition. Also, an act x motive interaction presented in Appendix B, Table 5, showed that the main effect for motive appeared predominantly in the opinion conformity condition.

Overall analysis. Summary of the results of the analysis of variance of subjects' ratings of how many other people would behave as the ingratiator did are included in Table 24. A significant main effect for age group indicated that first graders ($\bar{x} = 3.64$) thought that more people would behave as the ingratiators did relative to the other age groups (third grade, $\bar{x} = 3.09$; fifth grade, $\bar{x} = 3.03$; adults, $\bar{x} = 3.17$). These means are on a scale from 1 to 5, rather than on a scale from -5 to +5 as the other measures reported here were.

A significant main effect for target, shown in Table 25, indicated that the number of people expected to behave as the ingratiator did increased steadily as target status increased. Significant main effects for act and motive showed that more people were expected to do a favor ($\bar{x} = 3.40$) than were expected to opinion conform ($\bar{x} = 3.06$) and that more people were expected to perform an ulterior motive act ($\bar{x} = 3.36$) than were expected to perform a no ulterior motive act ($\bar{x} = 3.10$).

All main effects were modified in one or both of the two significant interactions. Table 25 shows the target x motive interaction, which indicated that the target main effect was due primarily to the no ulterior motive condition. No differences as a function of target appeared when there was an ulterior motive. Described differently, the interaction shows a steady diminution of the motive main effect as target status increases.

The second significant interaction, age group x sex x act x motive, is presented in Appendix B, Table 6. This four-way interaction appears to be due differences by sex within age

Table 24. Summary of Analysis of Variance of Overall Analysis
of Ratings of the Number of People Who Would Behave as
the Ingratiator Did.

Source	df	MS	F	<u>P</u>
Age Group (A)	3	11.11	3.44	.019
Sex (B)	1	1.09	.34	---
Target Status (C)	2	15.31	4.73	.011
AxB	3	1.55	.49	---
AxC	6	2.21	.68	---
BxC	2	2.14	.66	---
AxBxC	6	2.24	.69	---
Error	120	3.24		
Type of Act (D)	1	17.02	14.00	.0003
AxD	3	13.95	1.15	---
BxD	1	14.60	1.20	---
CxD	2	11.41	.94	---
AxBxD	3	.82	.68	---
AxCxD	6	1.26	1.03	---
BxCxD	2	1.53	1.26	---
AxBxCxD	6	1.14	.94	---
Error	120	1.22		
Motive (E)	1	9.77	8.38	.005
AxE	3	.17	.15	---
BxE	1	.63	.54	---
AxBxE	3	2.50	2.14	---
CxE	2	5.48	4.71	.011
AxCxE	6	.42	.36	---
BxCxE	2	2.31	1.99	---
AxBxCxE	6	.39	.34	---
Error	120	1.17		
DxE	1	1.67	2.01	---
AxDxE	3	.42	.50	---
BxDxE	1	.04	.05	---
AxBxDxE	3	2.29	2.76	.045
CxDxE	2	.99	1.19	---
AxCxDxE	6	1.49	1.79	---
BxCxDxE	2	.75	.90	---
AxBxCxDxE	6	.96	1.15	---
Error	120	.83		

Table 25. Subjects' Ratings of the Number of People Who Would Behave As the Ingratiator Did: Target x Motive.

Target	Motive		Target Main Effect
	UM	NUM	
LSP	3.19 ^a	2.65 ^b	2.92 ^x
HSP	3.49 ^a	3.14 ^c	3.32 ^y
Adult	3.41 ^a	3.52 ^{ac}	3.47 ^y

Means with no common superscript differ at the $p < .05$ level according to Newman-Keuls comparisons.

group in the strength of the motive main effect in the opinion conformity condition. Since there appears to be no compelling pattern to these differences, this interaction will not be described in detail. However, it does indicate that the motive main effect tended to be stronger when the act was opinion conformity. No ulterior motive opinion conformity was generally seen as the least common of the four acts.

Summary of Subjects' Perceptions of the Intentions and Dispositions Underlying the Ingratiating Act

Main effects. The age group, target, act, and motive main effects for the four measures discussed in this section are shown in Figure 4 plotted on the same axes so they can be readily compared. Inspection of the four age group main effects indicates that first graders always gave higher ratings than the other three age groups, no matter what question they were asked. The most notable comparison among age group main effects on different measures is that between ratings of likelihood of repetition of the act to the same target and ratings of likelihood of repetition to a "regular kid." As Figure 4 shows clearly, adults and fifth graders thought the behavior was considerably more likely to be repeated to the same target than to the "regular kid" while first and third graders showed relatively little differentiation.

All four of the measures in this section showed target main effects. With the exception of the manipulation check, these are the only measures on which target main effects were obtained, and as Figure 4 shows, the four effects do not all

Like T = Ingratiator's liking for the targets.

Same T = Likelihood of repetition to the same target.

Other T = Likelihood of repetition to a regular kid.

Usual = How many other people would behave as the ingratiation did? (Note different scale)

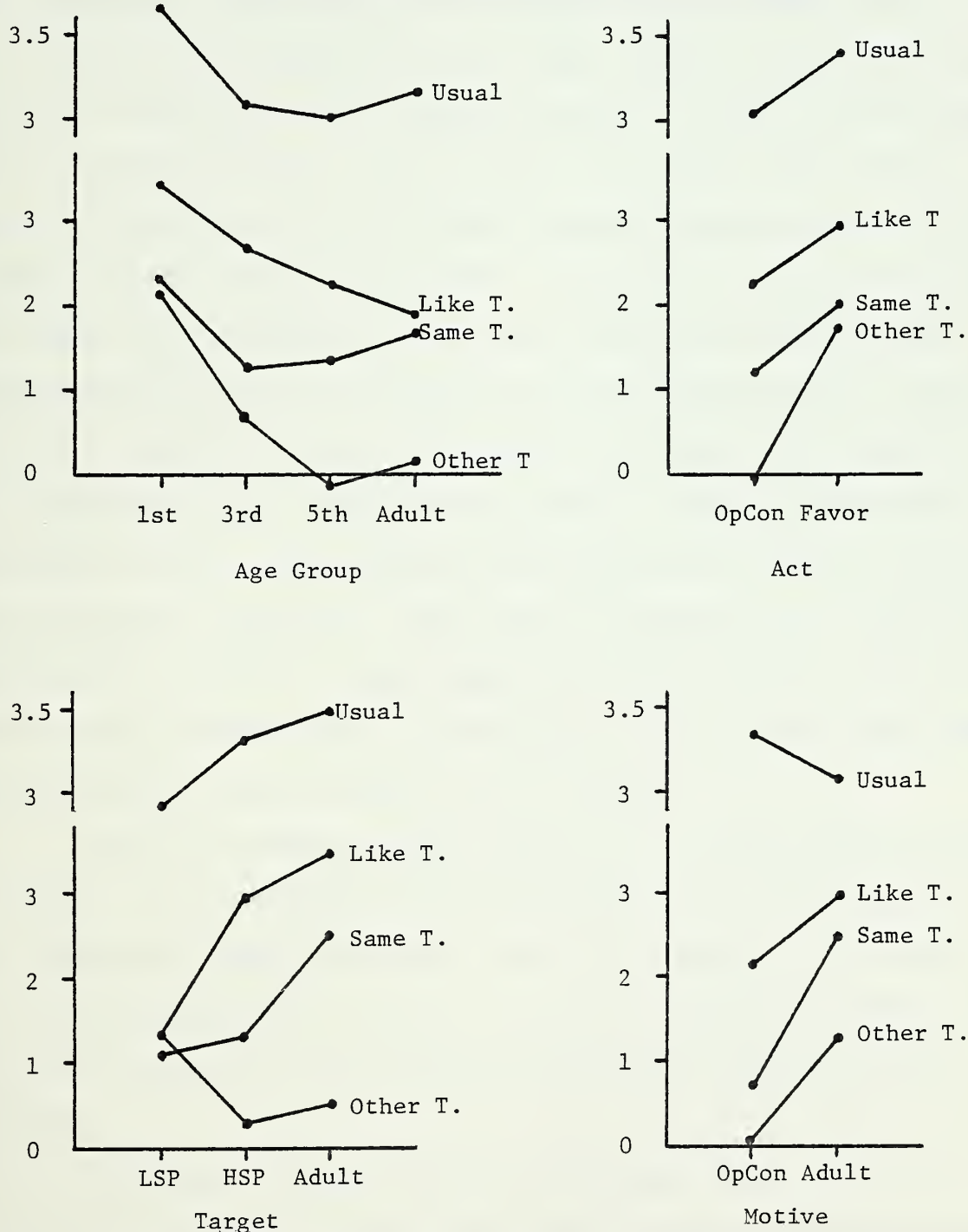


Figure 4. Main Effects on Scales Pertaining to Perceptions of Intent and Dispositions.

have the same form. The most notable difference is that between the target effect that emerged when subjects estimated the likelihood of repetition to the same target and the effect that emerged when likelihood of repetition to a "regular kid" was estimated. Acts directed at adult targets were seen as most likely to be repeated to the same target, while acts directed at low status peer targets were most likely to be repeated to a "regular kid." This is just the effect that should appear if subjects perceive that ingratiating acts directed at adults are motivated by extrinsic benefits to be gained while the same acts directed at low status peers are motivated by general dispositions to behave in the described manner. However, it can also be seen that subjects thought the ingratiators liked the adult targets quite well. High expected consistency to this target might thus reflect high liking rather than extrinsic concerns. This does not appear to be sufficient explanation, however, since high status peer targets, who were seen as well liked, were not expected to elicit the same degree of consistency adult targets could command.

Another notable target effect is the low rating of the usualness of ingratiating acts directed at low status peers. Low "normative expectancy" for such acts appears to coincide with high expectation that the act will be emitted toward a variety of targets, as an attribution theory analysis would predict.

The four act main effects all appear very similar in direction, although favors were viewed as about equally likely to be repeated both to the same target and to a regular kid,

while opinion conformity was seen as more likely to be repeated to the original target. The motive main effects, however, again show an inverse relationship between expected repetition and ratings of usualness. The no ulterior motive acts were seen as more likely to be repeated, but as less usual, than the ulterior motive acts. As indicated above, this is what would be predicted if low normative expectancies lead to more confident dispositional attributions.

Age group x motive effects. Three of the four measures reported above showed very similar age group x motive effects. On their ratings of the ingratiators' liking for the targets and on their predictions of repetition both to the same target and to a "regular kid," first graders showed no motive effects. First graders also saw the act as equally likely to be repeated either to the same target or to the "regular kid." All of the three older age groups did show motive effects, though these tended to be a little weaker among third graders than among fifth graders and adults. The two older age groups also indicated more certainty that the acts would be repeated to the same target than that they would be repeated to a different target, while third graders showed little differentiation as a function of same versus different target.

Other effects. The target toward whom the ingratiating act was originally directed was involved in interactions in the ratings from all four of the dependent measures just discussed. However, interactions involving target fell into no consistent

pattern from measure to measure. Two interactions involving both age group and target (age group x target x motive on ingratators' liking for targets and age group x target on repetition to a "regular kid") did indicate that first graders showed less extreme target effects, as usual. There were two interactions involving target and motive, the age group x target x motive interaction in ratings of ingratators' liking for targets and the target x motive interaction in ratings of usualness. These indicated that subjects felt that no ulterior motive ingratiation directed at a low status peer target did indicate at least some liking for this target and that the act, and hence the liking, was unusual. This seems quite straightforward.

Sex effects appeared on three of the measures in this section: the two likelihood of repetition ratings and the usualness rating. However, none of these effects seemed particularly revealing. The sex x act interaction appearing in the ratings of likelihood of repetition to a "regular kid" indicated that relative to males, females saw favors as less likely to be repeated to the "regular kid," but both sexes still showed significant act effects. Likewise, the age group x sex x act x motive interaction appearing in the usualness ratings showed relatively unimpressive fluctuations in the extremity of motive effects in the opinion conformity condition as a function of sex within age group. Overall, however, there did not appear to be a compellingly cogent pattern to these effects. The same was true of the pattern of effects in the five-way interaction appearing in the ratings of likelihood of repetition to the

same target.

The Target Responses to the Ingratiating Behavior

Predictions

Jones (1964) and Jones and Wortman (1973) have both discussed what is called "the ingratiator's dilemma." High status persons, who are very likely to be the targets of ingrating acts, are also likely to expect ingratiation and therefore to suspect the motives of someone who behaves toward them in an extremely nice or agreeable manner. If ingratiation is perceived as ingratiation, the target is not likely to respond positively to the ingratiator. Three scale questions were included to examine children's ideas about the responses of different targets to the ingratiators' actions: "Will the target like the ingratiator after the act is performed?" For the ulterior motive stories only: "Will the target pick the ingratiator to receive the desired benefit?" And, "Do you think the ingratiator did a smart thing?"

The question on the targets' liking for the ingratia-tors was also included to check on subjects' differentiation of the targets' evaluation from their own. In particular, if subjects' themselves see the illegitimate aspects of the ulterior motive acts, but expect the targets to fail to perceive the motives underlying these acts, then subjects should expect targets to evaluate the ingratiators more positively than they

themselves do.

"Will the target like the ingratiation after the act is performed?"

Adult control. Adult subjects' data showed main effects for act and for motive similar to those appearing in the overall analysis. In addition, adults showed a main effect for target, $F(2, 30) = 4.83$, which indicated that the target's liking for the ingratiation was expected to increase as target status increased (LSP, $\bar{x} = 1.58$; HSP, $\bar{x} = 2.68$; Adult, $\bar{x} = 3.13$). Thus, there was no evidence at all of any lessened liking toward the ingratiation on the part of very high status persons. (From adult subjects' comments it was clear that they expected teachers to like their students and to regard ingratiation from a child rather tolerantly.)

Overall analysis. Summary of the analysis of variance on this item is presented in Table 26. Results showed a main effect for sex indicating that female subjects ($\bar{x} = 3.31$) thought the target would like the ingratiation somewhat more than males ($\bar{x} = 2.72$) did. A main effect for act indicated that subjects expected favor-doers ($\bar{x} = 3.51$) to be better liked than opinion conformers ($\bar{x} = 2.52$). Also, a main effect for motive indicated that no ulterior motive ingratiation ($\bar{x} = 3.13$) were expected to be better liked than ulterior motive ingratiation ($\bar{x} = 2.90$).

Subjects' Own Liking Compared to the Targets' Liking

Although subjects were asked to rate the targets' liking for the ingratiation immediately after giving their own

Table 26. Summary of Analysis of Variance of Overall Analysis
of Ratings of the Targets' Liking for the Ingratiator.

Source	df	MS	F	p
Age Group (A)	3	25.10	2.34	---
Sex (B)	1	50.17	4.69	.032
Target Status (C)	2	28.86	2.70	---
AxB	3	6.59	.62	---
AxC	6	8.61	.80	---
BxC	2	10.55	.99	---
AxBxC	6	8.46	.79	---
Error	120	10.70		
Type of Act (D)	1	140.03	37.02	.00001
AxD	3	5.77	1.53	---
BxD	1	6.67	1.76	---
CxD	2	2.09	.55	---
AxBxD	3	.27	.07	---
AxCxD	6	5.07	1.34	---
BxCxD	2	2.51	.66	---
AxBxCxD	6	1.85	.49	---
Error	120	3.78		
Motive (E)	1	8.03	4.09	.045
AxE	3	1.06	.54	---
BxE	1	.84	.43	---
AxBxE	3	2.80	1.43	---
CxE	2	1.55	.79	---
AxCxE	6	.47	.47	---
BxCxE	2	.51	.26	---
AxBxCxE	6	1.09	.56	---
Error	120	1.96		
DxE	1	.25	.08	---
AxDxE	3	4.75	1.59	---
BxDxE	1	3.06	1.02	---
AxBxDxE	3	2.10	.70	---
CxDxE	2	1.40	.47	---
AxCxDxE	6	3.08	1.03	---
BxCxDxE	2	4.75	1.59	---
AxBxCxDxE	6	1.43	1.43	---
Error	120	2.99		

ratings of liking for the ingratators, the effects seen on the targets' liking item were much simpler than the effects seen in the own liking data. Comparison of the two main effects that appear on both items, the main effects for act and motive, indicates that the direction of these effects was the same on both items, but that the targets were expected to like the ingratators slightly better than the subjects themselves did, especially when the act was opinion conformity or when the ingratator had an ulterior motive. The means for these main effects from the two items are shown in Table 27, below. It is notable that, although there was a main effect for motive on the targets' liking item, as if subjects expected the targets to "see through" the UM ingratators, this effect was smaller in the targets' liking ratings than in the own liking ratings, indicating at least some realization that motive information might be less accessible to the target than it was to the subject.

"Will the target pick the ingratator to receive the desired benefit?"

Adult control. Adult subjects' responses showed a main effect for act and a target x act interaction, both of which are reflected in the overall analysis.

Overall analysis. Summary of the analysis of variance on this item is displayed in Table 28. Results indicated a main effect for age group showing that first graders ($\bar{x} = 2.72$) were most certain that the ingratator would be picked, fifth

Table 27. Comparison of Main Effects Found on Both
Subjects' Liking and Targets' Liking Items.

Level	Factor			
	Act		Motive	
	UpCon	Favor	UM	NUM
Own Liking	1.72	3.31	2.33	2.70
Targets' Liking	2.52	3.51	2.90	3.13

Table 28. Summary of Analysis of Variance of Overall Analysis
of Ratings of the Likelihood that the Target Would Pick
the Ingratiator to Receive the Desired Benefit
(Ulterior Motive Condition Only)

Source	df	MS	F	p
Age Group (A)	3	16.79	3.14	.028
Sex (B)	1	4.25	.80	---
Target Status (C)	2	3.36	.63	---
AxB	3	.64	.12	---
AxC	6	6.45	1.21	---
BxC	2	3.19	.60	---
AxBxC	6	5.66	1.06	---
Error	120	5.34		
Type of Act (D)	1	12.40	34.63	.00001
AxD	3	1.90	.53	---
BxD	1	2.17	.61	---
CxD	2	.64	.18	---
AxBxD	3	3.28	.92	---
AxCxD	6	9.87	2.76	.015
BxCxD	2	5.11	1.43	---
AxBxCxD	6	1.55	.43	---
Error	120	3.58		

graders ($\bar{x} = 2.40$) and third graders ($\bar{x} = 2.00$) indicated intermediate certainty, and adults ($\bar{x} = 1.61$) were least certain. A main effect for act showed that favor-doers ($\bar{x} = 2.84$) were thought more likely to be picked than opinion conformers ($\bar{x} = 1.53$). These two main effects were qualified in an age group x target x act interaction, presented in Table 29.

The age group x target x act interaction was due primarily to the pattern of act by target means produced by third graders. In all age groups except the third grade, the act main effect tended to increase in strength as target status increased. This tendency was particularly pronounced among the adult subjects. However, third graders showed exactly the opposite trend. They saw the two peer targets as much more likely to pick the favor-doer than to pick the opinion conformer, but when the target was an adult, they saw the two ingratiators as equally likely to be picked.

"Did the ingratiator do a smart thing?"

Adult control. Summary of the analysis of variance of adult control group ratings of the smartness of the ingratiating act is presented in Table 30. It shows a main effect for act (favor smarter than opinion conformity) similar to that seen in the overall analysis. The adult control group also showed a main effect for motive indicating that ulterior motive acts ($\bar{x} = 1.67$) were smarter than no ulterior motive acts ($\bar{x} = .96$). This was qualified by a sex x target x motive interaction, shown in Appendix B, Table 7, which showed that males rated UM and

Table 29. Subjects' Ratings of the Likelihood that the Target Would Pick
the Ingratiator to Receive the Desired Benefit: Age Group x
Target x Act.

Age Group	LSP		HSP		Adult	
	OpCon	Favor	OpCon	Favor	OpCon	Favor
1st grade	2.17 ^a	3.08 ^{ab}	1.92 ^a	2.67 ^{ab}	2.42 ^a	4.08 ^b
3rd grade	.42 ^a	3.42 ^b	1.08 ^a	3.17 ^b	2.25 ^{ab}	1.86 ^b
5th grade	1.83 ^a	2.42 ^{ab}	2.50 ^a	3.58 ^{ab}	1.42 ^{ac}	2.67 ^{ab}
Adult	1.58 ^{ac}	2.00 ^{ab}	1.08 ^{ac}	3.17 ^b	-.33 ^c	2.17 ^{ab}

Means with no common superscripts differ at the $p < .05$ level
according to Newman-Keuls comparisons.

Table 30. Summary of Analysis of Variance of Adult Control Subjects' Ratings of the Smartness of the Ingratiating Act.

Source	df	MS	F	p
Age Group (A) Adults Only				
Sex (B)	1	.34	.03	---
Target Status (C)	2	.44	.04	---
AxB	-	---	---	---
AxC	-	---	---	---
BxC	2	12.59	1.11	---
AxBxC	-	---	---	---
Error	30	11.36		
Type of Act (D)	1	369.67	73.33	.00001
AxD	-	---	---	---
BxD	1	6.67	1.23	---
CxD	2	13.59	2.51	---
AxBxD	-	---	---	---
AxCxD	-	---	---	---
BxCxD	2	1.72	.32	---
AxBxCxD	-	---	---	---
Error	30	5.41		
Motive (E)	1	18.06	8.32	.007
AxE	-	---	---	---
BxE	1	.01	.003	---
AxBxE	-	---	---	---
CxE	2	5.81	2.68	---
AxCxE	-	---	---	---
BxCxE	2	7.22	3.32	.050
AxBxCxE	-	---	---	---
Error	30	2.17		
DxE	1	18.06	6.86	.014
AxDxE	-	---	---	---
BxDxE	1	3.06	1.16	---
AxBxDxE	-	---	---	---
CxDxE	2	1.02	.39	---
AxCxDxE	-	---	---	---
BxCxDxE	2	3.06	1.16	---
AxBxCxDxE	-	---	---	---
Error	30	2.63		

NUM acts about equally smart unless the target was an adult in which case the NUM act was rated much less smart than the UM act. Females rated the NUM act less smart than the UM act in both the high status peer and adult target conditions, but not in the low status peer target condition where there was a slight reversal of the motive main effect. When there was an ulterior motive, females saw the smartness of the act as increasing steadily as target status increased, but when there was no ulterior motive, acts directed at the high status peer were rated somewhat less smart than acts directed at the low status peer or the adult.

The adult control analysis also showed an act x motive interaction, shown in Table 31, which indicated that among adults, the main effect for motive appeared only when the act was opinion conformity.

Overall analysis. The analysis of variance of subjects' ratings of the smartness of the ingratiating act is summarized in Table 32. The main effect for age group indicated that first graders ($\bar{x} = 2.98$) rated the act significantly smarter than the older age groups (third grade, $\bar{x} = 1.36$; fifth grade, $\bar{x} = 1.00$; adults, $\bar{x} = 1.31$). The act main effect showed that favors ($\bar{x} = 3.24$) were considered smarter than opinion conformity ($\bar{x} = .09$). Both these main effects were qualified in one or more of the three significant two-way interactions.

The age group x act interaction, shown in Table 33, indicates that the age group main effect was primarily due to age group differences appearing in the opinion conformity condition. In the favor condition, there were no strong differences

Table 31. Adult Control Subjects' Ratings of the
Smartness of the Ingratiating Act: Act x
Motive.

Motive	Act	
	UpCon	Favor
UM	.36	2.97
NUM	-1.06	2.97

Table 32. Summary of Analysis of Variance of Overall Analysis of Ratings of the Smartness of the Ingratiating Act.

Source	df	MS	F	p
Age Group (A)	3	110.27	6.94	.0002
Sex (B)	1	4.69	.30	---
Target Status (C)	2	24.19	1.52	---
AxB	3	18.80	1.18	---
AxC	6	12.05	.76	---
BxC	2	6.47	.41	---
AxBxC	6	24.64	1.55	---
Error	120	15.90		
Type of Act (D)	1	1362.84	175.13	.00001
AxD	3	35.79	4.60	.004
BxD	1	2.01	.26	---
CxD	2	38.34	4.93	.009
AxBxD	3	3.79	.49	---
AxCxD	6	6.29	.81	---
BxCxD	2	4.86	.62	---
AxBxCxD	6	7.91	1.02	---
Error	120	7.78		
Motive (E)	1	.25	.06	---
AxE	3	11.04	2.58	---
BxE	1	1.36	.32	---
AxBxE	3	.73	.17	---
CxE	2	5.40	1.26	---
AxCxE	6	2.92	.68	---
BxCxE	2	2.11	.49	---
AxBxCxE	6	4.25	.99	---
Error	120	4.28		
DxE	1	70.84	14.70	.0002
AxDxE	3	5.07	1.04	---
BxDxE	1	.01	.001	---
AxBxDxE	3	9.92	2.06	---
CxDxE	2	4.53	.94	---
AxCxDxE	6	5.85	1.21	---
BxCxDxE	2	10.05	2.09	---
AxBxCxDxE	6	6.60	1.36	---
Error	120	4.82		

Table 33. Subjects' Ratings of the Smartness of the
Ingratiating Act. Age Group x Act.

Age Group	Act	
	OpCon	Favor
1st grade	2.10 ^a	3.86 ^b
3rd grade	- .38 ^c	3.10 ^b
5th grade	-1.02 ^c	3.01 ^b
Adults	- .35 ^c	2.97 ^b

Means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

as a function of age group.

The target x act interaction, shown in Table 34, indicates that the main effect for act was extremely strong in the high status peer condition due to very low ratings of the smartness of opinion conformity to this target. Opinion conformity to the high status peer was seen as significantly less smart than opinion conformity to a low status peer, with opinion conformity to the adult given an intermediate rating of smartness.

The act x motive interaction, shown in Table 35, indicated that, in the opinion conformity condition, the ulterior motive ingratiation was considered to be smarter than the no ulterior motive ingratiation, while in the favor condition, the no ulterior motive ingratiation was rated as smarter than the ulterior motive ingratiation. From our previous examination of the act x motive interaction appearing in the adult control data, it is apparent that the younger age groups contribute most heavily to the NUM smarter than UM difference when the act was a favor.

Comparison of Niceness Ratings and Smartness Ratings

It ingratiation is regarded as an intelligent, but somewhat dishonest, way to get what one wants, then it would be reasonable to expect that ratings of an ingratiating act's smartness would be higher than ratings of its niceness. In order to examine the relationship between ratings of niceness and ratings of smartness, each subject's "smartness" rating of each ingratiation was subtracted from the "niceness" rating for that ingratiation, and the results were submitted to an analysis

Table 34. Subjects' Ratings of the Smartness of the
Ingratiating Act. Target x Act.

Target	Act	
	OpCon	Favor
LSP	.70 ^a	2.91 ^b
HSP	- .67 ^c	3.22 ^b
Adult	.19 ^{ac}	3.60 ^b

Table 35. Subjects' Ratings of the Smartness of
the Ingratiating Act: Act x Motive.

Motive	Act	
	OpCon	Favor
UM	.40 ^a	2.85 ^b
NUM	- .22 ^c	3.62 ^d

Within each table, means having no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

of variance, summarized in Table 36. An age group main effect emerges indicating a linear decrease with age from first graders, who saw the acts as somewhat more nice than smart ($\bar{x} = .50$), to adults, who saw the acts as more smart than nice ($\bar{x} = -.62$). Third graders ($\bar{x} = .20$) and fifth graders ($\bar{x} = -.08$) had intermediate nice minus smart scores. In addition, the nice minus smart analysis shows a main effect for target, although no target main effects emerged in either the nice or the smart data separately. Acts directed at high status peers were considered more nice than smart ($\bar{x} = .47$), while acts directed at low status peers and at adults were regarded as slightly more smart than nice (LSP, $\bar{x} = -.16$; Adult, $\bar{x} = -.19$). The main effect for act, present in both the nice and the smart data, cancels out in the nice minus smart analysis, failing to reach the $p < .05$ level. A motive main effect does emerge, indicating that ulterior motive acts were rated more smart than nice ($\bar{x} = -.34$) while no ulterior motive acts were rated more nice than smart ($\bar{x} = .42$). All main effects were qualified by interactions.

The age group x motive interaction, shown in Table 37, indicates that the motive main effect appears most strongly in the responses of the adult subjects, who saw the ulterior motive acts as substantially more smart than they were nice. Also, the act x motive interaction shown in Table 38 indicated that the motive main effect was considerably stronger when the act was opinion conformity. Ulterior motive opinion conformity was seen as more smart than nice, while in all other act x

Table 36. Summary of Analysis of Variance of Subjects' Ratings
of the Niceness of the Ingratiating Act Minus Subjects'
Ratings of the Smartness of the Ingratiating Act.

Source	df	MS	F	p
Age Group (A)	3	32.70	4.01	.009
Sex (B)	1	4.00	.49	---
Target Status (C)	2	26.74	3.28	.041
AxB	3	1.34	.16	---
AxC	6	4.16	.51	---
BxC	2	4.29	.53	---
AxBxC	6	18.66	2.29	.040
Error	120	8.16		
Type of Act (D)	1	24.17	3.71	---
AxD	3	7.86	1.21	---
BxD	1	2.25	.35	---
CxD	2	1.13	1.74	---
AxBxD	3	4.29	.66	---
AxCxD	6	5.26	.81	---
BxCxD	2	6.94	1.07	---
AxBxCxD	6	1.21	1.86	---
Error	120	6.52		
Motive (E)	1	84.03	16.84	.0001
AxE	3	34.63	6.94	.0002
BxE	1	4.34	.87	---
AxBxE	3	5.37	1.08	---
CxE	2	9.93	1.99	---
AxCxE	6	2.08	.42	---
BxCxE	2	1.96	.39	---
AxBxCxE	6	4.76	.95	---
Error	120	4.99		
DxE	1	40.11	7.21	.008
AxDxE	3	1.09	.20	---
BxDxE	1	.84	.15	---
AxBxDxE	3	4.82	.87	---
CxDxE	2	1.98	.36	---
AxCxDxE	6	1.20	.22	---
BxCxDxE	2	13.89	2.50	---
AxBxCxDxE	6	7.69	1.38	---
Error	120	5.56		

Table 37. Subjects' Ratings of the Niceness of the Ingratiating Act Minus Subjects' Ratings of the Smartness of the Ingratiating Act: Age Group x Motive.

Age Group	Motive	
	UM	NUM
1st grade	.49 ^a	.51 ^a
3rd grade	.13 ^a	.28 ^a
5th grade	-.28 ^a	.43 ^a
Adult	-1.71 ^b	.46 ^a

Means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

Table 38. Subjects' Ratings of the Niceness of the
 Ingratiating Act Minus Subjects' Ratings of the
 Smartness of the Ingratiating Act: Act x
 Motive.

Motive	Act	
	UpCon	Favor
UM	-.81 ^a	.48 ^b
NUM	.13 ^b	.36 ^b

Means with no common superscripts differ at
 the $p < .05$ level according to Newman-Keuls compar-
 isons.

motive cells, ratings indicated that the ingratiators were more nice than smart. Finally, the sex x target x motive interaction, shown in Appendix B, Table 8, indicates that the main effect for target was substantially modified among first grade females and third grade males, who showed generally linear decrease in nice minus smart scores as target status increased. The target main effect was also modified among adult males, who showed relatively little differentiation as a function of target, always seeing the acts as smarter than they were nice. As with earlier interactions involving age group and sex, this one does not seem particularly revealing and will not be discussed in any detail.

Summary of Subjects' Perceptions of Targets' Responses to the Ingratiating Behavior

Main effects. No age group main effect appeared in ratings of the targets' liking for the ingratiators', but first graders thought that the targets would be more likely to pick the ingratiators than did other age groups, and they thought the ingratiating acts were smarter than the other age groups did. Thus, it appears that older age groups did not necessarily expect the targets' liking to go hand-in-hand with the targets' choosing the ingratiator to receive the desired benefit. Targets were generally expected to like the ingratiators between "somewhat" and "pretty much", but this did not mean they would choose them to be on the team or in the play.

Act main effects appeared on all three of the measures reported in this section, with favor-doers invariably rated higher than opinion conformers. There was a motive main effect

apparent in subjects' ratings of targets' liking for the ingratiators. It was in the now usual direction: no ulterior motive ingratiators were expected to be better liked. However, no motive main effect appeared in subjects' ratings of the smartness of the ingratiating acts. This was the only measure that failed to show a motive main effect, except the manipulation check and the targets' choice ratings; the latter only obtained in one motive condition making a motive main effect impossible.

Act x motive effects. Instead of a motive main effect, the analysis of the smartness ratings showed an act x motive interaction in which ulterior motive opinion conformity was viewed as smarter than no ulterior motive opinion conformity, but ulterior motive favor doing was viewed as less smart than no ulterior motive favor doing. It was mentioned above that the motive effects in the favor condition appeared to be due mostly to the responses of younger subjects, since adult control subjects viewed both favors as equally smart.

Target x act effects. Two interactions reported above involved target and act: the age group x target x act interaction in the ratings of the likelihood that the target would pick the ingratiator and the target x act interaction in the smartness ratings. There is a notable lack of similarity in the patterns of means seen in the two interactions. Most notably, opinion conformity to a high status peer was viewed as rather dumb relative to opinion conformity to the other targets. However, there was no indication that the high status

peer would be less likely to pick an opinion conformer than the other targets would be. Of course, the target x act interaction in the smartness ratings was produced by summing across motive conditions, whereas the age group x target x act interaction in the "targets' choice" ratings included means only from ulterior motive stories, since only in the ulterior motive condition was the likelihood the the targets' selecting the ingratiator estimated. It might be possible that the pattern of means seen in the smartness ratings was heavily influenced by no ulterior motive scores, even though the target x act x motive interaction did not reach significance. However, examination of this three-way interaction reveals that smartness ratings of opinion conformity as a function of target were very similar in the two motive conditions. In fact, if anything, the ulterior motive condition contributes more heavily to the target x act pattern seen in the smartness ratings. Thus, it appears that variations in the perceived smartness of an act did not bear any strong relationship to the likelihood that the act would result in the ingratiators' being chosen by the targets.

Subjects' Free Response Explanations of the Ingratiators' Actions

Predictions

No strong a priori predictions were made regarding subjects' free response explanations of the ingratiators' behavior, though it was hoped that examination of subjects'

unstructured explanations would aid interpretation of their scale responses. In particular, free responses were expected to help determine whether the absence of motive effects among younger children was due to failure to perceive that the ulterior motive actions were in fact extrinsically motivated. Also, as described below, the free responses could be examined for systematic differences in the degree to which subjects attributed ingratiation to the dispositions of the ingratiators or to the structure of the situations in which the ingratiators found themselves.

Free responses were coded into a system of post hoc categories (described in detail in Appendix C) by a single coder, the experimenter, who obviously was not blind to the hypotheses of the study. Also, because of the post hoc nature of any comparisons to be made, and because of the difficulty in doing tests of significance on frequency data in a design with some within and some between subjects factors, no attempt has been made to do tests of significance on these data. Thus, the free responses are presented in a descriptive manner, and must be regarded as purely supplemental to the main body of results obtained from analysis of the objective scale responses.

The Coding System

As described in Appendix C, subjects' explanations of the ingratiators' actions were coded into four categories. The first three, described below, were intended to differentiate explanations attributing cause to the dispositions of the ingratiator, explanations attributing cause to the

characteristics of the target or to an interaction between the dispositions of the ingratiator and the characteristics of the target, and explanations attributing cause to the nature of the situation. These three categories fall along a rough continuum from "cause completely internal" to "cause completely external." The fourth category was an "other" classification into which idiosyncratic or uninterpretable responses were coded.

The first category, called "I's Dispositions", contained responses that attributed the act either to the ingratiators' nice, friendly nature or to the ingratiators' enduring liking for the targets. The second category, called "Interpersonal Goals", included responses that attributed the action to the ingratiators' desire to influence the target either to get some extrinsic benefit, to get the targets to like them (as opposed to performing the act because of the ingratiators' liking for the targets), to avoid conflict, etc. A third category, called "Normal Response to the Situation" contained slightly different types of responses as a function of type of ingratiating act. When the act was opinion conformity, some subjects' expressed the opinion that the ingratiators' opinions had changed so that they now really agreed with the target. These subjects explained the ingratiators' "conformity" by reference to the good qualities of the arts and crafts materials the targets preferred, indicating that it was reasonable for the ingratiators to say these materials were good because they really were good materials. To say something is good because

it really is good was regarded as a "normal response to the situation." In response to the favor stories, a number of subjects explained that the targets' lack of needed materials was sufficient reason for the ingratiators' provision of these materials, that there was a "moral imperative" to provide things to people who need them, that this was something anyone would do under the circumstances. This was also scored as a "normal response to the situation."

Results

Appendix C, Tables 1 through 3, contains an exhaustive description of the free response data from subjects' explanations of the ingratiators' actions. The smaller tables presented here are all drawn from these complete descriptions of the data.

The first question to be asked of this free response data is, "Did subjects from different age groups spontaneously mention ingratiation (desire for extrinsic benefits provided by the target) as a reason for the ingratiators' actions?" Table 39 presents the frequency with which ingratiation was mentioned as a function of motive, age group x motive, target x motive, and age group x target x motive. These tables show, not surprisingly, that ingratiation was mentioned as a motive much more often when there was an obvious ulterior motive present in the story. This was true regardless of target or age group. Ingratiation was mentioned very infrequently when there was no

Table 39. Number of Subjects Mentioning Ingratiating Intent:

Age Group x Target x Motive.

Response Classification		Ingratiation Mentioned		Other Explanation Only		No Answer, Missing	
Motive		UM	NUM	UM	NUM	UM	NUM
Age Group	Target						
1st grade	LSP	13	2	7	17	4	5
	HSP	13	0	6	19	5	5
	Adult	17	2	7	22	0	0
3rd grade	LSP	17	0	6	24	1	0
	HSP	20	1	3	22	1	1
	Adult	21	3	2	21	1	0
5th grade	LSP	22	1	1	23	1	0
	HSP	24	1	0	23	0	0
	Adult	22	7	2	17	0	0
Adults	LSP	24	5	0	19	0	0
	HSP	24	5	0	19	0	0
	Adult	23	17	0	7	1	0
Overall	LSP	76	8	14	83	6	5
	HSP	81	7	9	83	6	6
	Adult	83	29	11	67	2	0
Motive Totals		240	44	34	233	14	11
1st grade	Total	43	4	20	58	9	10
3rd grade	Total	59	4	11	67	3	1
5th grade	Total	68	9	3	63	1	0
Adults	Total	71	27	0	45	1	0

ulterior motive present, except among adult subjects in the adult target condition. In this cell there were a substantial number (17 out of 24 or 71%) of responses in the ingratiation category.

Table 39 also shows that, within the ulterior motive condition, there was a steady increase with age in the number of ingratiation responses. Each subject heard two ulterior motive stories and thus had two chances to mention ingratiation as the cause of the behavior in the ulterior motive condition. Thus, within age group, the total possible number of mentions of ingratiation was 72. First graders gave 43 out of 72, or 60% of the total possible, mentions of ingratiation in the ulterior motive stories. Third graders gave 82% of the total possible mentions of ingratiation; fifth graders gave 94%; adults gave 99%. Examination of Table 40 indicates that the somewhat low number of mentions of ingratiation among first and third graders owe much to low recognition of the ingratiating motive when the act was opinion conformity. In this case, 44% of the first graders' responses and 72% of third graders' responses included recognition of the ingratiating motive. When the act was a favor, 75% of the first graders' responses and 89% of the third graders' included recognition of ingratiating motives. Thus, there appeared to be a general increase with age in the spontaneous recognition of ingratiation in these ulterior motive stories, and this increase was more pronounced when the act was opinion conformity due to greater difficulty among the younger children in recognizing the purpose of this act. The confusion

Table 40. Number of Subjects Mentioning Ingratiating Intent:

Age Group x Act x Motive.

Age Group	Act	Ingratiation Mentioned		Other Explanation Only		No Answer, Missing	
		UM	NUM	UM	NUM	UM	NUM
1st grade	OpCon	16	2	13	26	7	8
	Favor	27	2	7	32	2	2
3rd grade	OpCon	26	2	7	34	3	--
	Favor	32	2	4	33	--	1
5th grade	OpCon	33	5	3	31	--	--
	Favor	35	5	--	31	1	--
Adult	OpCon	35	14	--	22	1	--
	Favor	36	13	--	23	--	--
Overall	Opcon	110	23	23	113	11	8
	Favor	130	22	11	119	3	3

of the first graders about what opinion conformity meant is reflected in the high number (15 out of 72, or 21%) of no answer responses given by first graders when explaining opinion conformity.

Since the act factor was varied within subject, it is obviously the case that some subjects who recognized the ingratiating motives underlying an ulterior motive favor did not recognize these motives when the act was opinion conformity. Table 41 shows first graders' recognition of ingratiation in the ulterior motive stories broken down according to whether ingratiation was recognized in one or both stories. From this table it can be clearly seen that of the 16 subjects who recognized ingratiating intent in the opinion conformity story, only 2 (about 1%) failed to recognize the ingratiating motives in the favor story. Of those first graders (8) who failed to recognize the ingratiating intent in the favor story, 6 (75%) also failed to recognize the ingratiating intent in the opinion conformity story. This is just another way of illustrating that these younger children do seem to recognize the ingratiating function of a favor before they recognize the ingratiating function of opinion conformity.

From the foregoing description of subjects' mentions of ingratiation as a motive for the acts in the ulterior and no ulterior motive stories, it is clear that most subjects did see the acts as ingratiating when there was an obvious extrinsic benefit to be gained. They generally did not see the acts as ingratiating when there was no extrinsic benefit to be gained.

Table 41. First Graders Mentioning Ingratiation in UM Stories.

		Opinion Conformity		
		Ingratiation Mentioned		
		Yes	No	Total
Favor				
Ingratiation	Yes	14	13	27
Mentioned	No	2	6	8
Total		16	19	35*

*Missing data from one subject.

Tables 42 and 43 present data obtained from classification of subjects' first explanations of the ingratiation acts according to the categorization scheme described above. (Data on all of the subjects' responses is presented in Appendix C. The pattern of frequencies seen there does not seem to differ extremely from the pattern of frequencies obtained when only first responses are examined, and because first responses provide independent frequency counts across categories, they produce "cleaner" results.)

Table 42 shows the frequencies with which various explanations were given as a function of motive, age group x motive, target x motive, and age group x target x motive. Results indicate that when an ulterior motive was mentioned in a story, 78% of the subjects' responses (226 of 288) fell in the interpersonal goals category, as would be expected from our examination of recognition of ingratiation. Four percent of subjects' responses fell in the "I's Dispositions" category; 13% fell in the "Normal Response to the Situation" category; and 5% fell in the "No answer, missing, or other" category.

When no ulterior motive was stated in the story, subjects were much more mixed in their explanations. About 38% of subjects' responses fell in the "I's Dispositions" category; 32% fell in the "Interpersonal Goals" category; 21% fell in the "Normal Response to the Situation" category; and 9% fell in the "No answer, missing, or other" category.

Looking at the pattern of frequencies appearing as a function of age group and motive, we see once again a steady

Table 42. Subjects' First Responses When Asked to Explain the Ingratiators' Behavior, Age Group x Target x Motive.

Response Classification		I's Dispositions		Interpersonal Goals		Normal Response to Situation		Other No Answer Missing	
Motive		UM	NUM	UM	NUM	UM	NUM	UM	NUM
Age Group	Target								
1st grade	LSP	0	8	11	2	9	8	4	6
	HSP	2	2	11	5	5	11	6	6
	Adult	2	3	16	7	6	12	0	2
	Total	4	13	38	14	20	31	10	14
3rd grade	LSP	2	10	13	4	8	8	1	2
	HSP	0	11	20	7	3	4	1	2
	Adult	1	8	20	11	2	4	1	1
	Total	3	29	53	22	13	16	3	5
5th grade	LSP	0	16	23	5	0	2	1	1
	HSP	1	12	22	9	1	2	0	1
	Adult	0	8	23	11	1	4	0	1
	Total	1	36	68	25	2	8	1	3
Adult	LSP	1	14	23	4	0	3	0	3
	HSP	2	15	21	9	1	0	0	0
	Adult	0	4	23	17	0	3	1	0
	Total	3	33	67	30	1	6	1	3
Overall	LSP	3	48	70	15	17	21	6	12
	HSP	5	40	74	30	10	17	7	9
	Adult	3	23	82	46	9	23	2	4
Motive Totals		11	111	226	91	36	61	15	25

Table 43. Subjects' First Responses When Asked to Explain the Ingratiators' Behavior: Age Group x Act x Motive.

Response Classification		I's Dispositions		Interpersonal Goals		Normal Response to Situation		Other	
Motive	Act	UM	NUM	UM	NUM	UM	NUM	UM	NUM
Age Group									
1st grade	OpCon	1	4	17	10	11	12	7	10
	Favor	3	9	21	4	10	19	2	4
3rd grade	Opcon	0	9	27	17	6	7	3	3
	Favor	2	20	27	5	7	9	0	2
5th grade	Opcon	1	14	34	17	1	2	0	3
	Favor	0	22	34	8	1	6	1	0
Adult	Opcon	0	11	35	22	0	0	1	3
	Favor	3	22	32	8	1	6	0	0
Overall	Opcon	2	38	113	66	18	21	11	19
	Favor	8	73	114	25	19	40	3	6

increase with age in responses falling in the "Interpersonal Goals" category. There are also age-related increases in use of the "I's Dispositions" category. We now see, however, what attributions younger children are making when they are not attributing to the ingratiators' dispositions or to their desire to affect the targets. Both first and third graders show much heavier use of the "Normal Response to the Situation" category relative to the two older groups. As noted above, first graders also produce more missing or uncategorizable responses.

Examination of the target x motive pattern shows that in the no ulterior motive condition use of the "Interpersonal goals" category increases steadily as target status increases, while use of the "I's Dispositions" category declines steadily with target status. In the ulterior motive conditions, the most prominent differences as a function of target appear in the "Normal Response" and the "No answer or other" categories. Use of these categories declined with target status. Examination of the age group x target x motive pattern indicates that this reflects the pattern of responses among younger children who tended to recognize the interpersonal goals involved in the ulterior motive stories somewhat more reliably as target status increased. Except for this greater recognition of interpersonal goals among younger children as target status

increased, the patterns of target x motive means seen within age group resemble quite closely those seen in the overall target x motive pattern.

The act x motive and age group x act x motive patterns seen in Table 43 indicate substantially greater use of the "Interpersonal Goals" category when subjects responded to the no ulterior motive opinion conformer than when they responded to the no ulterior motive favor-doer. Responses to the latter ingratiation fell in the "I's Dispositions" and "Normal Response to the Situation" categories. When there was an ulterior motive, the patterns of response to the two acts were highly similar, with the largest number of responses in the "Interpersonal Goals" category. Age group did not substantially modify this pattern in any way that does not reflect the age group differences mentioned above.

Free Response Explanations and Scale Ratings

It is apparent from this examination of subjects' free response explanations for the ingratiation behaviors that first graders' failure to show motive effects in their scale ratings was not due to failure to understand the purpose of ulterior motive acts, at least when the act was a favor. Seventy-five percent of the first-grade group was able to explain that the purpose of the ulterior motive favor was to get the target to pick the ingratiation for the kickball team, but this did not affect any of their scale ratings. They clearly did not see

favor-doing as less laudable or less likely to generalize when an ulterior motive was involved.

Subjects' Ideas about What They Themselves
Would Do to Be Chosen to Receive
A Desired Benefit

Predictions

As described in the methods section, the very first task subjects were asked to perform involved listening to the first half of one of the ulterior motive stories and then imagining that they were in the story, that they wanted to be in the play or on the kickball team, and that they heard the teacher say that the high status peer, the low status peer, or the teacher herself would pick who would receive the desired benefit. What would they do if they were in such a position? No specific predictions were made as to subjects' responses to this "imagine self" task, which was included simply to discover what subjects of various ages regarded as effective influence strategies. However, one question of particular interest was whether younger children would show any awareness that different strategies might be called for with different targets.

The Coding System

The responses given by each subject were coded into a system of post hoc categories that is described in detail in Appendix C. There were eight types of responses mentioned with

sufficient frequency to warrant separate categories. A miscellaneous category was also included and contained a fairly substantial number of idiosyncratic or unclassifiable responses. The eight strategies that were separately tabulated were: direct requests for the benefit; self-presentational efforts; bribes and offers to trade benefits; sharing, helping, complying, or otherwise trying to establish in the target a moral or social obligation to provide benefits to the subject; being friendly or seeking the proximity of the target so the target would bestow the benefit out of friendship; being very good or obedient; flattering or agreeing with the target; and explicit mention that any influence attempts would not work or would backfire. These strategies can be loosely chunked into two groups as a function of whether or not they are aimed at obligating the targets to choose the subjects for reasons other than the subjects' objective suitability for the activity in which participation was desired. Direct requests, self-presentational attempts and avoidance of influence involve no effort to produce an obligation to choose on the part of the target. We will refer to these as the "up-front" categories. All the other strategies require that the targets be convinced that the subjects "deserve" to receive the benefit they desire. We will refer to these as the "obligation" categories.

Results

The frequency with which various influence strategies were mentioned as a function of age group, of target, and of age group x target is tabulated in Table 44. (Neither act

nor motive had yet been manipulated at the time of the "imagine-self" task.) Subjects were allowed to give multiple responses, so the frequencies within age group are not independent of each other.

Considering the frequencies in Table 44 as a function of age, it is notable that adults used the "up-front", no obligation categories much more frequently than did any of the younger groups. Sixty percent of the 78 responses produced by 36 adult subjects fell into the three "up-front" categories, whereas among the younger age groups, 19 of 72 (26%) of the fifth graders' responses were "up-front", 20 of 70 (29%) of third graders' responses were "up-front", and 7 of 51 (14%) of the first graders' responses fell in this category. What this pattern of responses most likely reflects is adults' failure to recall what a number of young subjects acutely pointed out, that in a classroom situation, many other children besides oneself are likely to desire the same benefit that one desires. When faced with a number of competitors who are probably just as well qualified as oneself, the "up-front" approach is unlikely to produce results.

Looking at the kinds of strategies children of different ages did mention, we see that use of the "bribe or bargain" technique increased with age, and that fifth graders mentioned share, help, or comply strategies considerably more often than other groups. There was also a steady decrease with age in the use of the "good or obedient" category, and examination of the age group x target pattern reveals that this was due

Table 44. Subjects' Ideas About What To Do To Be Chosen to Receive A Desired Benefit: Age Group x Target.

Category	Direct Request	Self Present	Bribe or Bargain	Share, Help or Comply	Friendly, Proximity	Good, Obedient	Flatter, Butter-Up	No Influence	Misc.
Age Group	Target								
1st grade	LSP	2	-	2	6	1	1	-	5
	HSP	2	-	4	1	4	1	-	3
	Adult	2	1	2	1	8	-	-	2
	Total	6	1	8	8	13	2	-	10
3rd grade	LSP	2	1	5	7	-	1	1	2
	HSP	5	2	4	3	2	-	3	4
	Adult	2	3	-	-	7	-	1	6
	Total	9	6	9	10	9	1	5	12
5th grade	LSP	6	1	5	5	-	1	-	4
	HSP	2	3	4	2	-	-	1	2
	Adult	1	4	2	-	5	2	1	2
	Total	9	8	11	7	5	3	2	8
Adults	LSP	7	2	1	4	-	3	2	3
	HSP	10	7	3	2	-	3	2	3
	Adult	7	6	-	-	2	-	4	6
	Total	24	15	4	6	2	6	8	12
Overall	LSP	17	4	13	22	1	6	3	14
	HSP	19	12	11	8	6	4	6	12
	Adult	12	14	3	1	22	2	6	16
Totals		48	30	27	31	29	12	15	42

primarily to declining use of this strategy directed at an adult target. The pattern of frequencies as a function of target alone shows, not surprisingly, that use of the good or obedient category was almost exclusively reserved for adult targets.

Other patterns appearing as a function of target indicated that the "up-front" strategy of directly requesting the desired benefit was applied slightly more when the target was a peer than when the target was an adult. On the other hand, self-presenting and withholding influence attempts were mentioned more frequently when the target was a high status peer or an adult than when the target was a low status peer. Turning to the "obligation" categories, bribes and bargains, sharing, helping, and complying were all regarded as more appropriate to peer than to adult targets.

Sharing, helping, and complying were mentioned particularly often when the target was a high status peer. Being friendly or seeking proximity was a strategy almost exclusively aimed at the low status peer, and as already mentioned, being good and obedient was regarded as more appropriate for influencing adult than for influencing peer targets. Although the frequencies appearing in age group x target cells tend to be somewhat small, it is notable that within target patterns just described generally do appear among all of the younger age groups. Thus, even the first graders seemed to display some awareness that being very nice and friendly might get a low status peer to choose them, while sharing or helping with classwork might work better with a high status peer who probably is not lacking in friends.

CHAPTER IV

DISCUSSION

The study reported in the present paper was designed to investigate children's evaluations of ingratiating behaviors performed under different circumstances and also to examine children's ideas about the intentions and dispositions of persons who perform ingratiating acts. In particular, the present author was interesting in examining variations in children's responses to ingratiation directed at persons of low, moderately high, and very high status under circumstances in which there either was or was not an obvious ulterior motive for the ingratiating act. Two different types of ingratiating acts, opinion conformity and favor-doing, were described to subjects as occurring under these various target and motive conditions. Subjects' rating scale responses to and their free verbal explanations of ingratiation were expected to provide both an understanding of children's perceptions of strategic behavior specifically and a better picture of patterns of attribution in young subjects generally.

A set of heuristic predictions was developed based on concepts borrowed from Jones and McGillis's (1976) formulation of attribution theory and on Jones and Wortman's (1973) attributional analysis of ingratiation. Basically, it was proposed that ingratiating acts could be attributed to three different causes. Either the ingratiator could desire to form a special friendship with the target of an ingratiating act; or the ingratiator could desire extrinsic benefits controlled by the target; or the ingratiator could be the kind of person who is disposed to direct this kind of act to people generally. The likelihood that each of these three causes is the cause of a given ingratiating act should vary with the presence or absence of extrinsic benefits that are under a target's control. In this experiment the presence or absence of extrinsic benefits to be gained through ingratiation was varied either by a straightforward statement that a target controlled a benefit desired by the ingratiator or by statements altering the identity of the target from "a kid nobody liked very much," to "a kid everybody liked a lot," to the ingratiator's teacher. These variations in target status should vary the likelihood that desire for an extrinsic benefit caused a given act, since the higher the status of a target, the more likely it is that this target controls extrinsic benefits.

Thus, when the status of a target is extremely high, the likelihood that an ingratiating act was spurred by ulterior motivations should also be high, and the likelihood that the act was caused by a desire for friendship or by general dispositions should be reduced. However, when a target's status is

is only moderately high, then desire for friendship with the target should become most salient as the probable cause of an ingratiating act. Finally, when an ingratiating act is directed at a target of very low status, neither desire for extrinsic benefits nor desire for a special friendship should be particularly likely causes of the act, and the probability that the ingratiation simply acts this way toward everyone should increase.

On the basis of this analysis of ingratiation, it was predicted that evaluation of ingratiation should be higher when no obvious extrinsic benefit was described in the experimental stories because desire for friendship or a disposition to be "nice" to everyone are more socially acceptable than desire for extrinsic gains. By the same token, evaluations should be higher when target status was lower, again because of increased probability of socially desirable motivations. Target status and presence or absence of obvious extrinsic benefits should also affect subjects' predictions of the ingratiation's future behavior. If the ingratiation was due to desire for extrinsic benefits, the ingratiation should be less likely to repeat the act in the future, at least when target status is not too high. When target status is very high, the act is likely to be repeated to the same target, but it is not likely to be repeated to a target of lower status. The ingratiating act should also be unlikely to generalize if it were originally due to a desire to form a friendship with a specific target.

An adult control group was included in the study as well as three groups of children, first graders, third graders, and fifth graders. This adult control was intended both to check

the manipulations and to provide a real rather than heuristic set of adult responses against which children's responses could be compared. It was expected that, relative to adults and older children, first graders would be insensitive to motives when they evaluated ingratiation. It was also thought that younger children might tend to evaluate ingratiation very positively when its target was an adult because their presumably "heteronomous" relationship with adult socializing agents leads them to regard all "nice" behaviors directed at adults as very nice indeed. By the fifth grade, however, it was expected that children would have come to understand the illegitimate aspects of ingratiation directed at adult targets and that this would produce lowered evaluation of "nice" acts directed at this target relative to nice acts directed at peer targets. What implications for future behavior ingratiation might hold for young subjects was essentially an open question. A few hints in the literature indicated that even quite young children could predict simple things; e.g., a toy chosen once would likely be chosen again. However, there was no indication as to when children's behavioral predictions might begin to reflect the influence of known ulterior motives or of target status. A second open question was whether children of different age groups might perceive differences in the effectiveness of ingratiation in achieving one's ends, especially when different targets were involved.

Heuristic Predictions and Adult Control Responses

Before discussing age-related differences in attributional patterns seen in the results of this study, a brief discussion of the correspondence between the heuristic, idealized attributional analysis of ingratiation and the responses of a group of real adults should be presented. Considering first adult evaluations of the ingratiators, we saw that adult judgments of the niceness of ingrating acts showed expected effects for act and motive, but not for target. However, adult subjects' ratings of liking for the favor-doers generally resembled the expected attribution theory-based pattern. When the target was a low status peer, ulterior motive favor-doers were not liked at all, but no ulterior motive favor-doers were very well liked. No significant differences as a function of motive appeared in the other target conditions. It appears that adults generally saw favor-doing as quite likeable, unless there was an obvious ulterior reason for doing a favor for a low status peer. Doing a favor for an adult was viewed somewhat less positively than doing a favor for a peer, especially in the no ulterior motive condition, but the differences as a function of target fell short of significance. Adult ratings of liking for opinion conformers did not fall into the pattern expected on the basis of the attributional analysis proposed in the introduction to this paper. Adults viewed opinion conformity as quite negative except when the target was a high status peer and there was

no ulterior motive. Adult subjects were particularly hard on an opinion conformer who agreed with a low status peer for no apparent reason.

Examination of adult subjects' free response explanations for no ulterior motive opinion conformity, presented in Appendix C, Table 2, provides some information on why adults evaluated this act as they did. When the target was a high status peer, 50% of the subjects said that the ingratiator liked the target, and 25% said that the ingratiator wanted the target to like him or her. This general agreement that the ingratiator's act reflected liking or a desire to be liked resulted in fairly positive evaluation. In the adult target condition, no ulterior motive opinion conformity was seen as ingratiation (desire for extrinsic benefits) by 50% of the sample: 17% said the ingratiator wanted to be liked; and 33% indicated that the act was due to a desire to copy, emulate, or be similar to the target. Thus, the fairly negative evaluation of this ingratiator appears to be due to perception of his or her action as ingratiation or perhaps as "spineless" copying of an authority figure.

In contrast to these fairly cogent patterns of explanation for no ulterior motive opinion conformity to a high status peer or to an adult, adults' free response explanations for NUM opinion conformity directed at the low status peer showed considerable variability. Twenty-five percent of the sample said the ingratiator was trying to be friendly or nice: 17% said the ingratiator liked the low status peer; but the only other category used by more than one subject was "Other," in which

25% of the responses fell. Thus, though there appeared to be no tendency to attribute loathesome motivations to the NUM opinion conformer in the low status peer condition, the high degree of variability here may indicate that subjects explained this ingratiator's act positively simply because they could not think of any other reason why someone would act this way, and not because they really thought the act was positively motivated. In the absence of a convincingly forgivable reason for conformity, such as desire to win approval from a well-liked peer, adults judged conformity severely.

Turning to adult perceptions of the intentions and dispositions underlying ingrating acts, we saw, first of all, that adults' attributions of the ingratiators' liking for the targets varied as a function of target status and motive much as the attributional analysis had predicted. Motive effects were strongest when the target was a low status peer. In this condition, the ulterior motive ingratiators were seen as disliking the target, while the no ulterior motive ingratiators were seen as liking the target fairly well. Both the high status peer and adult targets were seen as fairly well-liked regardless of motive, with the adult seen as the best liked of the three targets. This latter result was somewhat unexpected. It had been thought that greatest liking for the target would be attributed in the high status peer condition, where desire for friendship would be a salient motive for the ingrating acts.

Adults' predictions of repetition to the original target also showed the expected motive effect. Less likelihood of repetition was predicted when the ingratiator originally had an ulterior motive. No target main effect appeared, however, nor was there any particular evidence for diminution of motive effects in the adult target condition. Thus, the adult subjects apparently did not feel that this very high status target was more likely to elicit chronic ingratiation from grade-school-aged ingratiators. However, when adults were asked about the likelihood that the ingratiation would be repeated to a "regular kid", a target x motive pattern similar to the one expected did emerge. There were no motive effects when the original target was a teacher. In this target condition, no repetition was expected to the "regular.kid" under any circumstances. In both the high and low status peer conditions, a motive effect did appear, indicating that only the no ulterior motive ingratiators would repeat their acts to regular kids. This motive effect was equally strong in both peer target conditions, however, whereas it had been expected that no ulterior motive acts would be seen as more likely to generalize when the original target was a low status peer.

It was also expected that ingratiating acts directed at higher status targets might be seen as more usual than ingratiation directed at low status peers. Adults did not necessarily feel this to be true. However, they did rate ulterior motive acts as more common than no ulterior motive acts, especially in the opinion conformity condition. Thus, it appears that adults

felt that the presence of a tempting extrinsic benefit would tend to provoke otherwise rare and morally dubious efforts toward this goal.

Adults' ratings of the expected effects of ingratiation on the targets of such acts indicated that these subjects expected the targets to "see through" ingratiation and to like a no ulterior motive ingratiator better than one who had an ulterior motive. They also thought that targets' liking for the ingratiators would increase with target status, with the teacher liking the ingratiator better than either of the peer targets would. As mentioned above, the ingratiators were also expected to like the teachers best of all. Thus, it appears that adult subjects believed that children would like their teachers and teachers would like their children, with ingratiating acts having relatively little influence on this relationship.

Adults also expected that ulterior motive favor-doers would be fairly likely to receive the benefit they desired regardless of target, but that the peer targets would be more likely to pick an opinion conformer than the adult target would be. Adults also thought that doing favors was smarter than opinion conforming, although opinion conforming for an ulterior motive was seen as at least a little smart while opinion conforming with no ulterior motive was seen as rather dumb. In general, however, the pattern of results seen in adults' smartness ratings did not correspond particularly closely to adults' ratings of the likelihood that the ingratiators would get what they were after.

Adults' responses, then, sometimes conformed to and sometimes deviated from the pattern suggested by the attributional analysis of ingratiation presented in the introduction. It appears that motive and target status were appropriately manipulated but there are clearly places where the heuristic predictions were not borne out. Thus, patterns of attribution among younger subjects need to be compared not only to the idealized attributional pattern suggested by the author, but also to the patterns of response observed in the group of real adults.

Differences and Similarities in Evaluations of Ingratiators as a Function of Age

First of all, it was very clear that subjects of all age groups regarded favor-doing as nicer and more likeable than opinion conformity. This effect for act was less strong and appeared less reliably among first graders than among other groups, but in general, the act effect was the strongest one present in these results.

Also prominent in the results reflecting subjects' evaluations of the ingratiators were main effects for age indicating that first graders in particular viewed the ingratiators quite favorably. As indicated in the presentation of free response explanations for the ingratiating acts, this rather rosy tendency on the part of the youngest subjects did not appear to be due to failure to understand ulterior motives, at least when the act was a favor. Seventy-five percent of the first graders could explain the purpose of the ulterior motive

favor, but they obviously felt that doing favors in order to get favors in return was a perfectly laudable behavior.

In the introduction it was suggested that children might learn to discriminate by motive earlier when they judged good than when they judged bad behaviors because adults might consider motives more in responding to good behaviors. There appears to be no support for such an idea here. However, one might suggest after the fact that adults may regard ingratiating motives in young children in a positive rather than negative light. Doing a favor in order to get a favor may be regarded as a very right and proper thing for a young child to do. It is one way of "being good", which was foremost in many of the young children's minds when they were asked what they themselves would do if they wished to be chosen to receive some benefit. Thus, adults may reward some types of ingratiating behavior in younger children not because they fail to consider the motives involved, but because they consider this appropriate behavior, much more desirable than begging, or whining, or jumping up and down and waving one's arms.

As mentioned earlier, adult subjects in this experiment thought that the adult target of ingratiation would like the ingratiators better than either of the peer targets would, and they thought the adult target would be fairly likely to pick a favor-doer to receive the benefit he or she desired, although they did not think the adult would pick an opinion conformer. The adult subjects' comments indicated that they expected the teacher to undersatnd why the ingratiator was being so "nice", but they also expected her to respond tolerantly to ulterior

motive favor-doing. Thus, the younger subjects' positive evaluation of ulteriorly motivated favor-doers may reflect a veridical perception of this behavior as a very good one given the socialization context in which these children find themselves. Evaluation of opinion conformers is less easy to analyze due to the relatively low proportion of first graders who identified desire for the extrinsic benefit as the cause of ulterior motive opinion conformity. This strategy is apparently less familiar to the younger children.

This discussion of first graders' evaluation of ingratiation is oriented toward these children's relationships with adults, and it had been expected that they might regard ingratiation of adults as particularly positive. However, first graders' generally positive evaluations of the ingratiating acts showed no significant target effects. There was, however, somewhat greater recognition of the ingratiating function of the ulterior motive acts in the adult target condition.

Third and fifth graders showed the act main effect strongly and consistently, and they also displayed some sensitivity to target and to motive when they evaluated the ingratia-tors. When the act was a favor, there were no significant target effects on liking or niceness ratings for either age group. However, it is interesting to note that third graders gave their highest ratings of liking and niceness to the ingratiator who did a favor for a low status peer, while fifth graders gave their highest ratings of liking and niceness to the ingratiator who did a favor for a high status peer. (See Tables 6 and 11.)

Conceivably, this could reflect a tendency for third graders to interpret the favor-doers' behavior in terms of a moral obligation to be altruistic, respecially to those who really need favors, as a low status peer probably would. Fifth graders, on the other hand, may interpret favor-doing in line with a norm based on maintenance of realistic relationships within the peer group, a norm that decrees that it is, in fact, nicest to do favors for those who deserve them by virtue of their own nice dispositions. There is still a moral obligation involved, but here it is the obligation to be nice to those who are nice to you.

This comparison of third and fifth graders could be seen as paradoxical. The younger children appear to be giving more adult-like responses, attributing nicer dispositions to the actor with the least incentive to be nice. The paradox shows up not only in the age group x target x act interactions from the ratings of niceness and liking for the ingratiator, but also in the age group x act x motive interaction (Table 7) in the liking ratings. Here, in the favor condition, third graders liked the no ulterior motive ingratiator significantly better than the ulterior motive ingratiator, while among fifth graders, the difference was not significant. Of course, in the two-way age group x motive interaction in the niceness ratings (Table 10) no such paradox appeared. Here there were very straightforward progressive decreases in evaluation of ulterior motive ingratiators as age increased, while evaluation of no ulterior motive ingratiators stayed relatively high. The niceness rankings also showed steady increases with age in the

impact of the motive manipulation.

Examination of children's free response explanations for favor-doing (Appendix C, Tables 1 and 2) suggests a resolution of the apparent paradox of third graders sometimes giving more adult-like responses than fifth graders. Third graders tended to explain favors in terms of the moral imperative that exists to supply needed things to needy people, especially when there was no ulterior motive or when the target was a low status peer. Thus, these children's evaluations most likely reflect high approval of favor-doers who follow rules dictating helpfulness rather than reflecting a really adult-like tendency to attribute highly altruistic disposition to this favor-doer. Fifth graders actually used the "nice, friendly disposition" category more than third graders when explaining favor-doing to a low status peer, particularly when there was no ulterior motive. Yet the fifth graders still tended to evaluate the favor-doer most highly in the high status peer target condition, where the act was more often explained in terms of the ingratiator's liking for the target than in terms of the ingratiator's nice dispositions.

The pattern of evaluations appearing in the opinion conformity condition was, of course, different from that appearing in the favor condition.

When the act was opinion conformity, both third and fifth graders indicated fairly high liking of an ingratiator who opinion conformed to a low status peer, although they did not see this act as very nice. Fifth graders' liking for the

opinion conformers showed a nearly linear decrease as target status increased. Third graders, however, liked the opinion conformers somewhat better when the target was an adult than when the target was a high status peer (Table 6). A similar pattern showed up in the ratings of the niceness of opinion conformity (Table 11). Although differences in the niceness ratings as a function of target fell short of significance, fifth graders did rate opinion conformity to an adult as least nice. Third graders saw opinion conformity to an adult as most nice.

Interpreting these differences between third and fifth graders in patterns of evaluation of opinion conformity as a function of target is complicated by the fact that third graders generally said they would like ulterior motive opinion conformers better than no ulterior motive ones, while fifth graders showed no differences in rated liking for the opinion conformers as a function of motive. Also, the target x act x motive interaction in the liking ratings, while it shows no differences as a function of age group, needs to be considered. It showed (Table 8) that there were no differences as a function of motive in liking for the opinion conformers in the low status peer target condition, while in the high status peer condition, the no ulterior motive opinion conformer was better liked. In the adult target condition, however, the ulterior motive conformer was better liked.

A fairly simple explanation can be offered for the evaluations of opinion conformity seen in this target x act x motive interaction. The fairly lenient evaluations of ulterior motive opinion conformers who directed their acts at a low status peer or an adult could be seen as reflecting an expectation that these two targets are unlikely to grant the ingratators the benefit they desire unless subterfuge is employed. The high status peer, "a kid who everybody liked a lot," might be more likely to respond favorably to a reasonable request or to other nondevious approaches. Therefore it may be seen more deplorable to "fool" this very nice person. In the no ulterior motive condition, opinion conformity to both the low status and the high status peer targets could be seen as reflecting an intention to be friendly and agreeable, to express liking, or to win liking from the target, all of these being fairly positive sorts of motivations. However, copying the teacher when there is no obvious benefit to be gained is less likely to indicate friendliness than to indicate a desire to make the teacher think well of one so as to win an unfair share of her approval.

Unfortunately, examination of subjects' free response explanations for opinion conformity are not particularly helpful in supporting this explanation of the pattern of liking for the opinion conformers that appeared across age groups, nor do the free responses provide much useful information about the different patterns of evaluation seen within age groups. Typically, ingratiation was mentioned as the motivation for ulterior

motive opinion conformity, though as mentioned in the results section, recognition of the ingratiating intent of ulterior motive opinion conformity increased with age. When no ulterior motive opinion conformity was explained, high variability tended to be the rule, especially among the third and fifth graders. Fifth graders did tend to agree that the NUM opinion conformer in the low status peer target condition was either a friendly person (33%) or that this person happened to be one of the few people who did like the generally disliked peer (42%). There did not seem to be any similarly standard interpretations of NUM opinion conformity elsewhere among third and fifth graders. First graders, of course, either failed to give any explanation or said the NUM opinion conformers really agreed with the targets. Only adults showed much inclination to mention ingratiation as a motive for NUM opinion conformity to an adult target, although fifth graders were beginning to mention this possibility (See Appendix C, Tables 1 and 2).

The slightly greater inclination for fifth graders to mention ingratiation as a motivation for NUM opinion conformity to an adult may hint that the extrinsic rewards of being agreeable to adults are becoming more salient to children this age. This may help to explain their tendency to evaluate opinion conformity to adults less positively than opinion conformity to peers. Third graders may still regard conformity to adults as a fairly normal thing to do, though they have already begun to see that "fooling" a very nice peer is not quite cricket. This may be at least part of the reason for their tendency to

see opinion conformity to an adult target somewhat more positively than conformity to the high status peer.

In the case of the low status peer, there may be a dual reason why third and fifth graders were both rather lenient in their evaluations. The above analysis suggests that in the ulterior motive conditions, opinion conformity may be seen as relatively justifiable. When there was no ulterior motive, opinion conforming to a low status peer appeared to be viewed as well-intended, although not necessarily nice in and of itself. (Hence, high liking, but low niceness.) Possibly this extreme tactic for establishing rapport with the disliked peer was also seen as justifiable due to uncertainty about how this "kid not very many people liked" would respond to honesty or to silence. In any event, it was clear that none of the three younger age groups shared the adults' feeling that opinion conforming to the low status peer was quite reprehensible.

Age-Related Changes in Ratings of the Intentions and Dispositions Underlying the Ingratiating Acts

When subjects rated the ingratators' liking for the targets of the ingrating acts, a main effect for act appeared as usual, but act did not interact with target or motive, as had been the case in the evaluative ratings just discussed. Instead, an age group x target x motive interaction appeared (Table 14). Examination of this interaction again showed the paradoxical finding that the third graders' pattern of response

looked more like the adult pattern than did the fifth graders'. Both the adults and the third graders attributed relatively high liking for the target unless there was an ulterior motive for ingratiating a low status peer in which case very little liking for the target was attributed to the ingratiator. Fifth graders, however, attributed low liking for the low status peer in both motive conditions. Table 2 of Appendix C may help explain this. Fifth graders were somewhat more likely than third graders to explain no ulterior motive ingratiation of the low status peer in terms of the generally nice dispositions of the ingratiator. It is tempting to speculate that fifth graders, being more sensitive to peer group norms, may have felt that no one would like these low status peers very well, but that a nice person might perform nice acts toward them without really liking them. Adults also showed an inclination to explain no ulterior motive ingratiation in terms of the nice dispositions of the ingratiator, especially in the favor condition. However, as stated above, they also saw the NUM ingratiators as liking the low status peers better than the UM ingratiators did. Perhaps adults feel that very nice people tend to like others, even low status peers. However, the temptation to speculate may by this time be leading us down the garden path.

When we turn to the results from subjects' ratings of the likelihood that the ingratiating acts would be repeated to the same target, paradox emerges yet again. The main effect for target status, expected but not obtained in adults' ratings of likelihood of repetition to the same target, does appear when

all four age groups are analyzed as a whole. It would thus appear that, while adults might be unwilling to attribute to child ingratiators a stronger disposition to ingratiate adults than to ingratiate peers, the younger subjects were obviously aware of this fact of life.

Ratings of likelihood of repetition to the same target also showed an unparadoxical increase with age in recognition of the fact that no ulterior motive acts should (theoretically) be more likely to be repeated than ulterior motive acts (Table 16). Neither first nor third graders showed motive effects in the age group x motive interaction, while fifth graders and adults did. However, it can be seen from Table 16 that the first and third graders failed to show motive effects in different ways. The first graders showed rather high expectations that both ulterior motive and no ulterior motive acts would be repeated. The third graders showed rather low expectations that either kind of act would be repeated. The five-way interaction that appeared in ratings of expected repetition to the same target (Appendix B, Table 3) sheds some light on this. The means for this interaction show that third grade boys gave low ratings of expected repetition of NUM favors to peers. This ties in with third graders' tendency to attribute NUM favor-doing to moral obligations and to approve highly of those who fulfill such obligations. Subject comments indicated that if one has satisfied one's moral obligation by doing one favor, then there is no need to do another one. Third grade girls apparently did not see things this way since they thought that

no ulterior motive favors would be much more likely to be repeated than ulterior motive favors, especially when the target was a low status peer. Whether this reflects greater "social maturity" among the girls or greater adherence to adult-approved altruism norms is a moot point, but the latter seems most likely since fifth grade girls and adult females appeared less confident that the NUM favor would be repeated to the low status peer.

When subjects' ratings of the likelihood that the ingratiating acts would be repeated to "a regular kid" were examined, an age group x motive interaction also appeared (Table 22). This interaction was very similar to the one just described in the ratings of expected repetition to the same target, although this time third graders did not show lowered expectations of repetition of the no ulterior motive acts relative to fifth graders and adults. First graders again indicated that they thought the acts would be repeated regardless of motive. Third graders also showed no significant effects of motive, though their ratings of expected repetition were lower than the first graders'. Both fifth graders and adults did show the predicted motive effects, tending to think that no ulterior motive acts were at least a little likely to be repeated to the "regular kid", while ulterior motive acts would probably not be repeated.

The age group x target interaction appearing in the ratings of likelihood of repetition to a regular kid (Table 21) showed an interesting pattern of results, especially among the third graders. First graders, as usual, showed rather high

expectations of repetition regardless of target. Third graders, however, did show significant target effects where they had not shown significant motive effects. They thought the ingratiating acts would be significantly more likely to be repeated to a regular kid following ingratiation of a low status peer than following ingratiation of a high status peer. This is as an attributional analysis would predict, and fifth graders and adults showed differences in the same direction. However, third graders also thought the ingratiating act was significantly more likely to be repeated to a regular kid when the original target had been an adult than when the original target was a high status peer. Fifth graders expected no significant differences in probability of repetition to the regular kid following ingratiation of high status peer or adult targets, nor did adults show this difference in the overall analysis. (However, as discussed earlier, there was a target x motive interaction in the adult analysis considered separately.) This tendency on the part of third graders to predict relatively high probability of repetition to a regular kid following ingratiation of an adult is reminiscent of the pattern seen when third graders evaluated opinion conformity. Possibly, the higher expectation of repetition to a regular kid could reflect third graders' belief that people who ingratiate adults are really rather nice folks and that they will continue to behave ingratiatingly towards others. However, it may also be the case, though free response explanations do not strongly reflect it, that third graders in the opinion conformity condition

believe the ingratiator's opinions have really changed to conform to the adult approved point of view and that this is what is increasing predicted repetition here. It may also be the case that third graders are concerned that the adult will catch the opinion conformers if they say something different to a regular kid than they said to the adult. Since there is no target x act interaction, however, there is obviously no big difference in ratings of likelihood of repetition to a regular kid following favors directed at an adult and following opinion conformity directed at an adult. We might thus speculate a double reason for third graders' high predictions of repetition to the regular kid in the adult target condition: They may see the favor-doers as nice, moral people and the opinion conformers as either genuinely influenced or cunningly consistent. This may be the garden path beckoning again, though. Perhaps the only safe conclusion here is the vague one that ratings of likelihood of repetition to a regular kid provide additional evidence that third graders are responding to adult-oriented ingratiators differently than older children and adults are.

Turning to the ratings of the number of other people who would behave as the ingratiator did, we again see a target main effect emerging in the overall analysis when none was present among the adult control. The younger age groups again seemed to show recognition of the greater power of higher status targets to elicit ingratiation. A target x motive interaction (Table 25) indicated that this was particularly true when there

was no ulterior motive, exactly as should be the case based on attribution theory predictions.

Age-Related Differences in Perceptions of the Effectiveness of Ingratiation

The item requesting subjects to rate the targets' liking for the ingratators after the ingrating acts had been intended both to discover whether different ingrating acts might be seen as differentially effective in producing liking in different targets and also to examine the extent to which subjects might differentiate their own liking for the ingratiator from the targets' liking, especially in the ulterior motive condition. There were no interactions appearing in the overall analysis of the targets' liking ratings, nor were there any target status effects, so it does not appear that younger subjects expected any of the ingrating acts to have differential effects on any of the targets. The main effect for motive was present both in the overall analysis and in the adult control, so there is no indication of any particular age differences in expectations that the targets would "see through" the ulterior motive ingratators and like them somewhat less. It is, however, worthy of note that there was no age group main effect on ratings of targets' likings for the ingratators. Mean ratings of targets' likings from the four age groups were: $\bar{x}(\text{first}) = 3.44$; $\bar{x}(\text{third}) = 2.94$; $\bar{x}(\text{fifth}) = 3.21$; and $\bar{x}(\text{Adult}) = 2.47$. If these means for targets' likings are subtracted from the own liking means reported in the results section, the resulting difference scores are: first = .24; third = -.31;

fifth = $-.51$; and adult = -1.32 . Thus, first graders said they would like the ingratiators a little bit better than the targets would. With increasing age, there was a small, but regular, increase in subjects' inclination to say that the targets would like the ingratiators better than they, the subjects, would. This is, of course, what should emerge if there were a steady increase with age in realization that the target might not "see through" the ingratiators to the extent that the subject could. Comparison of the act and motive main effects from the own liking and targets' liking items (Table 27) also showed some indication that the targets might be taken in by devious actions while subjects themselves were not. However, there is certainly no indication of any striking differences as a function of age in subjects' apparent ideas about the way the targets' liking for the ingratiators would be affected by the ingratiators' acts.

There were, however, some notable differences from age group to age group when it came to predictions as to whether the ulterior motive ingratiators would be successful in getting chosen to receive the benefits they desired. First graders clearly thought that adults would certainly pick people who do favors for them (Table 29). Other age groups were not so confident. Fifth graders and adults appeared to think the high status peer would be most likely to pick a favor-doer, with low status peers and adults less inclined to do so. However, once again, it is the third graders whose responses attract the most attention. In the two peer target conditions, they thought

that the favor-doer was much more likely to be chosen than the opinion conformer, while in the adult target condition, they showed virtually no act effect. All the other age groups showed their strongest act effect in the adult target condition. Third graders' relatively low expectation that the peer targets would pick the opinion conformer might well reflect a lack of awareness of the ingratiating impact of this act. In other words, they may not see opinion conformity as being particularly valuable to peers, but an adult may approve of such behavior and thus chose this ingratiator. This, of course, ties in nicely with third graders' high evaluation of opinion conformity aimed at adults, their tendency to see the ulterior motive opinion conformity as nicer than the no ulterior motive opinion conformity, and their tendency to expect acts directed at adults to generalize to "regular kids". On the other hand, third graders may see favors as being more valuable to peers than to adults, and hence more likely to produce the desired results from peer targets. If we continue the "moral imperative" line of argument that we have been applying to third graders throughout this discussion, we might also suspect third graders of feeling that a favor to a peer would obligate this peer to reciprocate by picking the ingratiator. Adult targets, however, may be seen as less bound by this norm of reciprocation. Unfortunately, there is also the possibility that third graders simply see adults as uninfluencable and thus believe that nothing the ingratiator does is going to make much of a difference.

When it came to rating the smartness of the ingratiating act the most striking results appeared in two interactions that did not involve age group. The target x act interaction (Table 34) and the act x motive interaction (Table 35) give the impression that, while the favor-doing is always pretty smart, the smartness of opinion conformity is definitely related to how reasonable it is. Opinion conformity, while it is not very nice, may be a fairly intelligent strategy when there is a strong incentive in the form of an extrinsic benefit, or when there is reason to believe that one is confronting a target who is not predisposed to grant desires, such as a peer who nobody likes or an adult who has many other people's desires to consider. Opinion conformity is not, however, a strategy that many people will mention spontaneously when asked how they would go about getting another person to pick them to receive some desired benefit. As the results presented here show, offering a bribe, sharing and helping, and being friendly are the most popular strategies children mentioned for getting what they wanted, and favor-doing could fit into any of those categories.

Summary and Conclusions

Considering this body of results generally, then, we have seen that first graders do not seem very sensitive either to motive or to target status when they evaluate ingratiation. They did indicate that favor-doing was very nice while opinion conformity was only moderately nice. While this is not very

remarkable, it does provide evidence that first graders were using the evaluation scales appropriately, and that their failure to respond to target and motive manipulations was real and not simply a reflection of failure to understand the scales. It is also notable that more first graders appeared to understand the ingratiating function of favor-doing than the ingratiating function of opinion conformity, but this did not significantly lower their evaluations of the favor-doers in any target or motive condition.

First graders showed very little sensitivity to any of the manipulations when they rated the likelihood that the ingratiating acts would be repeated and the usualness of these acts. This makes it very difficult to determine whether or not failure to understand the scales was part of the reason for their apparently high certainty that the acts would be repeated and that many people would behave similarly. However, it should be noted that the first graders showed a high inclination to explain the ingratiating acts as normal responses to situations. If these younger children tend to think of behavior as caused by situations, then it is reasonable for them to expect that a repetition of a situation would produce a repetition of behavior, regardless of target or actor. A study by DiVitto and McArthur (1978) also found a greater tendency for young children to give situational attributions, which does supply some external support for this interpretation of the present results.

When evaluations and ratings of intent and disposition among third and fifth graders were examined, we saw results that sometimes indicated orderly age-related increases in the impact of the target and motive manipulations, and we sometimes saw an apparently paradoxical pattern in which third graders looked more like adults than fifth graders did. Also, we pointed out a number of places where third graders' ratings of ingratiation directed at adults indicated that these children might regard opinion conformity to adult targets especially for an obvious extrinsic reason as a more normal and more nice behavior than either fifth graders or adults thought it was. It was suggested that both the occasionally adult-like appearance of third graders' ratings and their tendency to be somewhat lenient towards adult-oriented opinion conformers might reflect a tendency for these children to make attributions based on situationally relevant rules, rules that sometimes lead them to mimic a true attributional calculus, but sometimes lead them astray. In particular, a rule that dictates that it is very nice to be kind to the disadvantaged may lead third graders to display adult-like patterns of attribution when evaluating and attributing dispositions to ingratiators who directed their acts at low status peers. What, then, may be influencing the attributions of fifth graders, whose responses actually looked less like those the attributional calculus would predict? (E.g., fifth graders showed no motive effects in attributed liking for the low status peer targets on the part of the ingratiators. They also predicted relatively low likelihood of repetition to the regular kid following ingratiation of the

low status peer, while third graders predicted high likelihood of repetition to the regular kid, as an attributional analysis would expect.) Possibly, older children are more attuned to the realities of relationships in the peer group: It may be very nice to be kind to the disadvantaged, but that does not mean one has to like them, and it does not mean one will be nice to somebody else who is just "a regular kid", and therefore may not necessarily merit nice acts.

In general then, we can suggest that, rather than demonstrating acquisition during the middle childhood years of the rudiments of an attributional calculus, what these results show are changes with age in the standard, paradigmatic explanations seen to correspond to behavior emitted under different circumstances. In some circumstances, children employ the same paradigmatic explanations employed by the inventors of attribution theory, and in some circumstances they employ other explanations that reflect the social reality in which they function. For the younger children this is an adult dominated reality in which behavior is determined by situation-bound rules. As age increases, reality becomes increasingly peer-oriented and interpretation behavior comes to reflect norms of reciprocity. With still further development, two different types of changes may occur. First, with the advent of formal operations in the early teen-age years, a true attributional calculus may be abstracted from similar rules applying across many situations. Secondly, peer group norms and adult norms gradually merge as the peer group becomes adult. Thus, we might suggest with some irony that adults actually judge behavior "in line with adult rules"

rather like younger children, only the "adult rules" applied by adults to their own behavior differ somewhat from those they apply to children.

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APPENDICES

- A. Experimental Materials
- B. Additional Tables
- C. Free Response Coding
Schemes and Tables

APPENDIX A
EXPERIMENTAL MATERIALS

Comprehension Questions (Asked to check understanding of stories):

UM Opinion - Conformity

1. Who wanted to be Rudolph the Red-Nosed Reindeer?
2. Which kind of costumes did (target name) say were easier, the paper or the cloth?
3. Who was going to be director of the play?
4. Before (target name) said anything, did (ingratiator name) like paper costumes, or did he/she not like paper costumes?
5. Which kind of costumes did (ingratiator name) say he/she liked right at the end of the story?

NUM Opinion Conformity

1. What kind of paper did (target name) say he/she liked, the construction paper or the tissue paper?
2. What kind of paper did (ingratiator name) think was prettier before he/she heard (target name) say anything?
3. What kind of paper did (ingratiator name) say he/she liked right at the end of the story?

UM Favor

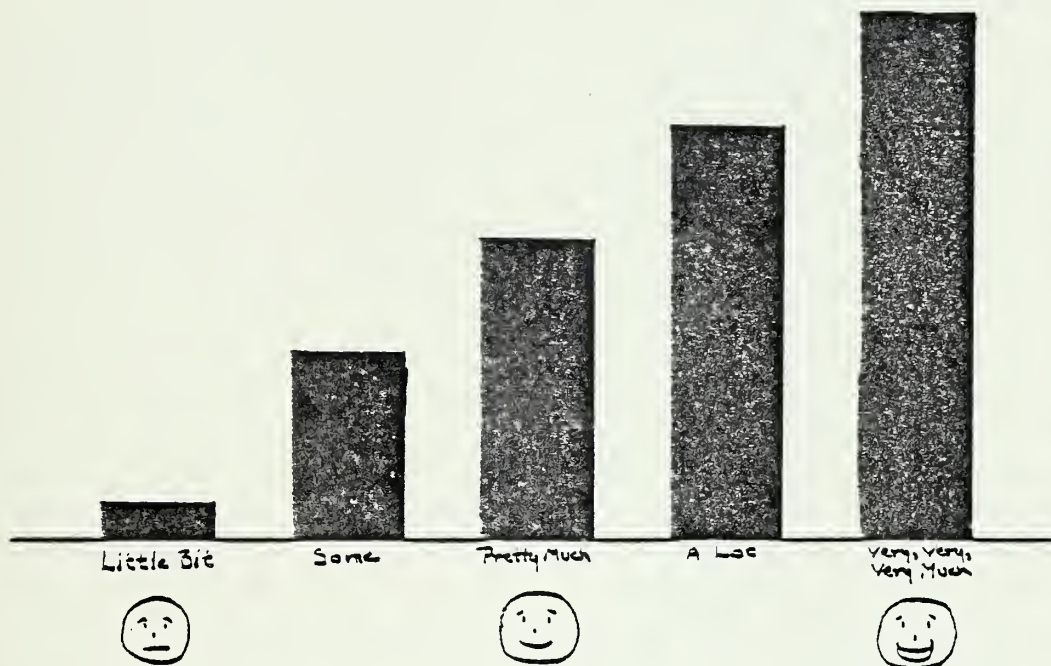
1. Who really, really wanted to go out and play kickball?
2. Who was going to get to say who got to be on the kickball team?
3. What did (ingratiator name) do right at the end of the story?

NUM Favor

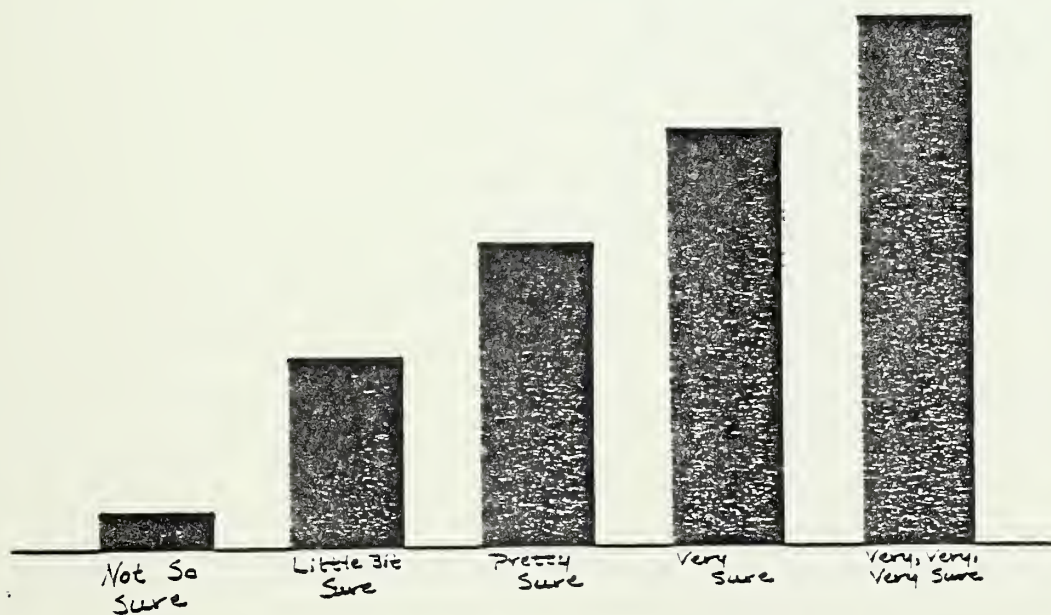
1. What did (ingratiator name) do right at the end of the story?

Rating Scales

Like



Sure



APPENDIX B
ADDITIONAL TABLES

Table 1. Niceness Rankings of the Four Ingratiators: Age Group x Target x Act x Motive.

Target	LSP				HSP				Adult			
	OpCon		Favor		OpCon		Favor		OpCon		Favor	
	UM	NUM	UM	NUM	UM	NUM	UM	NUM	UM	NUM	UM	NUM
<u>Age Group</u>												
1st Grade	2.92	3.50	1.83	1.75	3.50	3.33	1.67	1.50	3.50	3.33	1.25	1.92
3rd Grade	2.92	3.33	2.17	1.58	3.25	3.00	2.25	1.50	3.42	3.50	1.58	1.50
5th Grade	3.67	2.33	2.58	1.42	3.67	3.00	2.25	1.08	3.17	3.25	2.33	1.25
Adults	3.50	2.58	2.92	1.00	3.67	2.92	2.17	1.25	3.67	2.67	2.33	1.33

Ranks ranged from 1 (nicest) to 4 (least nice).

Table 2. Subjects' Liking for the Ingratiators: Age Group x Target x Act x Motive.

Target	LSP				HSP				Adult			
	OpCon		Favor		OpCon		Favor		OpCon		Favor	
	UM	NUM	UM	NUM	UM	NUM	UM	NUM	UM	NUM	UM	NUM
<u>Age Group</u>												
1st Grade	2.42	3.58	4.50	4.58	2.42	4.25	3.08	2.83	4.08	3.50	4.58	4.33
3rd Grade	3.67	2.91	3.50	4.50	.92	1.41	2.08	3.08	3.00	.42	2.25	3.75
5th Grade	3.00	3.08	3.00	3.67	1.67	2.00	3.42	4.17	1.50	.08	3.50	3.33
Adults	-.50	-1.25	-.17	3.67	-.50	1.00	3.00	3.92	-.17	-.42	2.42	2.42

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Table 3. Subjects' Ratings of the Likelihood that the Ingratiating Act Would Be Repeated to the Same Target: Age Group x Sex x Target x Act x Motive.

Target	LSP						HSP						Adult					
	OpCon			Favor			OpCon			Favor			OpCon			Favor		
	UM	NUM		UM	NUM		UM	NUM		UM	NUM		UM	NUM		UM	NUM	
<u>MALES</u>																		
Age Group																		
1st Grade	.00 ^a	1.67 ^{ab}		2.17 ^a	3.83 ^{ab}		4.50 ^a	.17 ^{bc}		.33 ^{bc}	2.67 ^{ab}		1.67 ^a	1.33 ^a		4.17 ^b	4.67 ^{bc}	
3rd Grade	.33 ^a	1.33 ^{ab}		1.00 ^a	.83 ^{ab}		-3.50 ^{b*}	-1.50 ^{bc}		1.83 ^{cd}	.17 ^{ac}		2.67 ^{a*}	.50 ^a		1.17 ^{ab}	2.83 ^{abc}	
5th Grade	-1.83 ^a	-.17 ^{ab}		-1.67 ^a	2.17 ^b		-1.50 ^b	2.50 ^c		-1.33 ^{bd}	3.67 ^{ac}		2.00 ^a	3.33 ^{ac}		1.50 ^{ab}	4.33 ^c	
Adult	1.17 ^a	.83 ^{ac}		.33 ^a	3.67 ^b		-.83 ^b	3.67 ^c		1.33 ^{bd}	4.00 ^{ac}		.67 ^a	3.00 ^{ac}		.50 ^{ab}	3.67 ^c	
<u>FEMALES</u>																		
Age Group																		
1st Grade	-.17 ^a	1.67 ^{ab}		1.17 ^a	1.00 ^{ab}		1.83 ^a	2.67 ^{ab}		3.17 ^{ab}	3.17 ^{abc}		3.83 ^a	3.50 ^a		3.50 ^{ab}	4.00 ^{ad}	
3rd Grade	.67 ^a	1.83 ^{ab}		1.33 ^a	4.17 ^b		-.17 ^a	2.67 ^b		.16 ^{ab}	2.17 ^{bc}		2.33 ^a	3.33 ^a		1.67 ^{ac}	2.00 ^{ad}	
5th Grade	.83 ^a	2.67 ^{ab}		.67 ^a	2.83 ^{ab}		-2.33 ^{a*}	-.17 ^{ab}		.17 ^b	2.83 ^c		3.67 ^{a*}	3.83 ^a		-2.33 ^{bc}	4.00 ^{ad}	
Adult	-2.16 ^a	2.50 ^{bc}		-1.83 ^a	3.00 ^b		-.33 ^a	3.00 ^{bc}		2.00 ^a	3.67 ^{ac}		-.33 ^a	2.00 ^{ac}		2.33 ^{bc}	3.83 ^{cd}	

Within sex and target, means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons. * indicates that two means differ at the $p < .05$ level within act and motive and between targets. This occurs only in the UM/OpCon condition among 3rd grade males and 5th grade females. In no age group x target x act x motive cell does the difference between the two sexes achieve the $p < .05$ level according to post hoc tests.

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Table 4. Adult Control Ratings of How Many Others Would Behave as the Ingratiator Did. Sex x Target x Act.

<u>Target</u>	<u>LSP</u>		<u>HSP</u>		<u>Adult</u>	
<u>Act</u>	OpCon	Favor	OpCon	Favor	OpCon	Favor
<u>Sex</u>						
Male	2.42	3.42	3.25	3.25	3.00	3.00
Female	2.92	3.17	2.58	3.92	3.33	3.42

F (2,30) = 4.48, $p < .02$

Table 5. Adult Control Ratings of How Many Others Would Behave as the Ingratiator Did. Act x Motive.

<u>Act</u>	<u>OpCon</u>	<u>Favor</u>
<u>Motive</u>		
UM	3.22	3.47
NUM	2.61	3.36

F (1,30) = 4.29, $p < .05$

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Table 6. Subjects' Ratings of the Number of People Who Would Behave as the Ingratiator Did. Age Group x Sex x Act x Motive.

<u>Act</u>		<u>OpCon</u>		<u>Favor</u>	
<u>Motive</u>		<u>UM</u>	<u>NUM</u>	<u>UM</u>	<u>NUM</u>
<u>Age Group</u>	<u>Sex</u>				
1st Grade	Male	3.89 ^a	2.83 ^b	4.00 ^a	3.72 ^a
	Female	3.22 ^a	3.67 ^{ab}	3.94 ^a	3.83 ^a
3rd Grade	Male	3.28 ^a	3.33 ^{ab}	3.11 ^a	3.00 ^a
	Female	3.17 ^a	2.44 ^b	3.22 ^a	3.17 ^a
5th Grade	Male	3.22 ^a	2.89 ^{ab}	3.50 ^a	3.17 ^a
	Female	2.72 ^a	2.61 ^{ab}	3.11 ^a	3.00 ^a
Adult	Male	3.06 ^a	2.72 ^{ab}	3.44 ^a	3.22 ^a
	Female	3.39 ^a	2.50 ^b	3.50 ^a	3.50 ^a

Means having no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

Table 7. Adult Control Subjects' Ratings of the Smartness of the Ingratiating Acts. Sex x Target x Motive.

<u>Target</u>	<u>LSP</u>		<u>HSP</u>		<u>Adult</u>	
<u>Motive</u>	<u>UM</u>	<u>NUM</u>	<u>UM</u>	<u>NUM</u>	<u>UM</u>	<u>NUM</u>
<u>Sex</u>						
Males	1.92 ^a	1.25 ^{ab}	1.42 ^a	1.42 ^{ab}	1.50 ^{ac}	.08 ^b
Females	.50 ^a	1.25 ^a	2.00 ^{ac}	.33 ^b	2.67 ^c	1.42 ^{ab}

Means with no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

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Table 8. Subjects' Ratings of the Niceness of the Ingratiating Act Minus Subjects' Ratings of the Smartness of the Ingratiating Act. Age Group x Sex x Target.

<u>Target</u>		<u>LSP</u>	<u>HSP</u>	<u>Adult</u>
<u>Age Group</u>	<u>Sex</u>			
1st Grade	Male	- .50 ^a	1.54 ^b	.58 ^{ab}
	Female	1.42 ^c	.13 ^{ab}	-.17 ^{bd}
3rd Grade	Male	.38 ^{ac}	.17 ^{ab}	-.50 ^{ab}
	Female	-.29 ^{ab}	.92 ^b	.54 ^{ab}
5th Grade	Male	- .50 ^a	.46 ^{ab}	-.08 ^{ab}
	Female	-.38 ^a	1.50 ^b	-.54 ^{ad}
Adult	Male	-.75 ^a	-.92 ^a	-.42 ^{ab}
	Female	-.67 ^a	-.04 ^{ab}	-.96 ^{ab}

Means having no common superscripts differ at the $p < .05$ level according to Newman-Keuls comparisons.

APPENDIX C

FREE RESPONSE CODING SCHEMES AND TABLES

Explanation of Coding Categories for Subjects' Explanations of the Ingratiator's Acts.

1. Nice, friendly: Included responses that indicated that the ingratiation was nice, kind, friendly, polite, etc. and that this disposition had produced the action in the story.
2. I likes T: Included responses that indicated that I liked T, was T's friend, or wanted to be T's friend.

****Pooled Category 1: I's Dispositions: Categories 1 and 2 above were pooled to form this category, which contained reasons for the action having to do with the ingratiation's dispositions or feelings.

3. Ingratiate: Included responses that mentioned a specific benefit to be gained from I's action over and above benefits intrinsic to friendship (e.g., getting on the team, getting target to share snack at break, becoming popular through association with popular target). Also included responses that used terms such as "curry favor," "get in good," "be a pet," "butter up," etc.
4. I wants T to like I: Included responses that indicated that I desired T's liking for the sake of that liking alone.
5. T's feelings: Included responses that indicated that I was trying to make T feel good, make T happy, keep T from feeling bad, or that I felt sorry for T.

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6. Avoid conflict: Included responses that indicated that I wanted to avoid argument or punishment.
7. T's qualities: Included responses that indicated that T was an extremely nice or popular person and that this was sufficient reason for I's action.
- *8. Copy: Included responses that indicated that I wanted to copy, conform to emulate, agree with, be like the target.

****Pooled Category 2: Interpersonally relevant goals: Categories 3-8 were pooled to form this category, which contained reasons for the action having to do with goals the ingratiation sought to achieve through his/her target directed action. The inclusion of categories 3-6 in his pooled category should be self-evident. "T's qualities" and "copy" were also included because it was felt that these reasons for ingratiation contained the implication of pay-off for the ingratiation either in terms of increased liking on T's part or in terms of a general feeling of being "in" with socially relevant others.

- #9. Moral imperative: Included responses such as "He ain't got none"; "She needed it"; "He couldn't do his work without it." These indicated an obligation to supply a needed object was sufficient explanation for the favor.
- *10. Really agreed: Included responses that indicated that I genuinely agreed with the target's opinion and therefore was not "conforming" but was stating a true opinion. This included "I changed his/her mind" responses and responses that indicated that I liked both kinds of arts and crafts materials mentioned in the story.

****Pooled Category 3: Normal response to situation: Categories 8 and 9 were pooled to form this category, which contained reasons for the action that indicated that it was neither due to I's dispositions nor to target relevant goals, but was a normal response to the situation. If someone needs something and you have it, you "normally" give it to them. If someone says something you agree with, then it is normal to state your agreement.

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11. Other: All responses not codable into the above categories.

12. No answer, missing.

****Pooled Category 4: Other: Categories 11 and 12 were pooled into this category.

*Relevant to opinion conformity stories only.

#Relevant to favor stories only.

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Explanation of Coding Categories for Subjects' Free Responses Regarding What To Do To Be Chosen To Receive A Desired Benefit

1. Direct Request Category: Includes responses indicating that the subjects would ask to be picked, would tell the target to pick them, would beg and plead, etc.
2. Self Present Category: Subjects would tell the target about or demonstrate for the target their skills at the activity they desire to participate in; or they would tell or demonstrate a great deal of motivation or eagerness.
3. Bribe or Bargain Category: Subjects would offer to "buy" the desired benefit with some material benefit given in return.
4. Share, Help, or Comply Category: Subjects would share things (usually food), would help the target with tasks, or would comply with target's requests.
5. Friendly, Proximity Category: Subjects would talk to, smile at, be friendly toward the target, would invite the target to participate in own activities.

Note on 3, 4, and 5: Bribe or bargain denotes an explicit exchange of material benefits, very business-like. The share, help, or comply category also involved exchange of benefits, but responses in this category involved the arousal of liking or gratitude in the target thus invoking a moral or social obligation to reciprocate the benefit rendered. In the friendly, proximity category, no physical benefits are provided the target. Rather, by demonstrating warm feeling for the target, the subjects hoped to get the target to choose them out of pure friendship.

6. Good, Obedient Category: Subjects would be very good, very quiet, not fight, be neat, or otherwise conform with rules hoping or expecting to be rewarded by the target for their goodness.
7. Flatter, Butter-Up Category: Subjects would flatter or opinion conform.
8. No Influence Category: Subjects explicitly state that influence attempts are useless or counterproductive.
9. Miscellaneous Category: Included a wide variety of idiosyncratic or uncodable responses; e.g., one or two subjects mentioned threatening

the target; one very sneaky third-grade boy said he'd make himself such a nuisance, the teacher would send him out to play kickball just to get rid of him, etc.

Appendix C

Table 1. Why did the ingratiation do what he/she did? Ulterior motive stories.

Age	Target	Nice, Friendly	I like T	Ingratiate to like T	T's I Feelings	Avoid Conflict	T's qualities	Moral Imperative	Really Agreed	No answer Other Missing
5th	OC	1(0)	--	11(11)	--	--	--	1(1)	--	--
	LSP F	1(0)	1(0)	11(11)	--	--	--	--	--	1
	OC	1(0)	2(1)	12(9)	--	1(1)	--	--	1(1)	--
	HSP F	3(0)	4(0)	12(12)	--	--	--	--	--	--
	OC	1(0)	--	10(6)	1(1)	2(1)	--	4(4)	--	--
Ad.	Ad. F	3(0)	--	12(11)	--	--	--	1(1)	--	--
	OC	3(0)	2(1)	33(26)	1(1)	3(2)	--	5(5)	1(1)	--
	Tot. F	7(0)	5(0)	35(34)	--	--	--	1(1)	--	1
Ad.	OC	--	--	12(12)	--	2(0)	--	2(0)	--	--
	LSP F	4(1)	1(0)	12(11)	--	--	--	--	--	--
	OC	--	--	12(11)	1(1)	1(0)	--	--	1(0)	--
	HSP F	5(1)	5(1)	12(9)	--	--	1(0)	--	4(1)	--
	OC	--	--	11(11)	--	--	--	--	--	1
Ad.	Ad. F	7(0)	--	12(12)	--	--	--	--	--	--
	OC	--	--	35(34)	1(1)	3(0)	--	2(0)	1(0)	1
	Tot. F	16(2)	6(1)	36(32)	--	--	1(0)	4(1)	--	--
Pooled Categories	I's Dispositions	Interpersonally Relevant Goals						Normal response to situation	Other	

Appendix C

Table 1. Why Did the Ingratiator Do What He/She Did? Ulterior Motive Stories.

Age	Target	Act	Nice, I like Friendly T	Ingra- I wants T tiate to like I	T's Feelings	Avoid Conflict	T's qual- ities	Moral Imper- Really ative Agreed	No answer Other Missing		
1st	LSP	OC	-- 1 (0)	4(4)	--	1(0)	--	-- 5(5)	-- 3		
		F	1(0) --	9(7)	--	--	--	4(4)	-- 1		
	HSP	OC	-- --	5(3)	--	--	--	1(1)	4(3)	1(1) 4	
		F	3(1) 3(1)	8(7)	--	--	--	--	2(2)	-- 1	
	Ad.	OC	1(0) 1(1)	7(6)	--	--	--	--	2(2)	-- --	
		F	4(1) --	10(7)	1(0)	--	--	--	5(4)	-- --	
3rd	Tot.	OC	1(0) 2(1)	16(13)	3(3)	1(0)	--	1(1)	12(11)	-- 7	
		F	8(2) 3(1)	27(21)	1(0)	--	--	--	11(10)	-- 2	
	LSP	OC	-- 1(1)	7(6)	--	--	--	1(0)	-- 4(4)	-- 1	
		F	4(1) 1(0)	10(7)	--	--	--	--	4(4)	-- --	
	HSP	OC	-- 1(0)	9(9)	--	2(1)	--	--	-- 2(1)	-- 1	
		F	-- 2(0)	11(9)	--	1(1)	--	--	2(2)	-- --	
3rd	Ad.	OC	1(0) --	10(7)	--	2(2)	--	2(1)	1(1)	-- 1	
		F	3(1) --	11(10)	--	1(0)	--	--	1(1)	-- --	
	Tot.	OC	1(0) 2(1)	26(22)	--	2(1)	2(2)	--	3(1)	7(6)	-- 3
		F	7(2) 2(0)	32(26)	--	2(1)	--	--	7(7)	-- --	
	Pooled Categories	I's Dispositions		Interpersonally Relevant Goals					Normal response to situation	Other	

Table 2. Why Did the Ingratiator Do What He/She Did? No Ulterior Motive Stories. Total Answers (1st answers).

Age	Target	Act	Nice, I like Friendly T	Ingrate- I likes T	I wants T to like I	T's Feelings	Avoid Conflict	T's qual- ities	Moral Imper- ative	Really Agreed	No answer			
											Other	Missing		
1st	LSP	OC	2(2)	1(1)	1(0)	--	--	--	2(2)	--	3(2)	1(1)	4	
		F	5(3)	3(2)	1(0)	--	1(0)	--	--	6(6)	--	--	1	
	HSP	OC	--	--	--	1(1)	--	--	1(1)	--	5(5)	1(1)	4	
		F	6(1)	4(1)	--	--	--	1(1)	3(2)	--	6(6)	--	--	1
	Ad.	OC	2(1)	--	1(1)	1(0)	4(4)	--	--	1(1)	--	5(5)	--	--
		F	2(2)	2(0)	1(1)	1(0)	1(0)	--	--	--	7(7)	--	2(2)	--
3rd	Tot.	OC	4(3)	1(1)	2(1)	4(4)	--	--	4(4)	--	13(12)	2(2)	8	
		F	13(6)	9(3)	2(1)	2(0)	2(0)	1(1)	3(2)	--	20(19)	--	2(2)	2
	LSP	OC	2(1)	3(3)	--	--	1(1)	1(0)	--	3(2)	--	4(3)	4(2)	--
		F	4(4)	6(3)	--	1(1)	1(0)	--	--	7(5)	--	--	--	--
	HSP	OC	--	4(3)	1(1)	3(2)	3(3)	1(0)	--	--	2(2)	1(1)	--	--
		F	3(3)	5(5)	--	1(1)	--	--	--	5(2)	--	--	--	1
Pooled Categories	Ad.	OC	2(2)	--	1(1)	2(2)	2(1)	--	5(3)	--	3(2)	1(0)	--	--
		F	8(6)	1(0)	2(0)	2(1)	1(1)	2(1)	--	--	3(2)	--	1(1)	--
	Tot.	OC	4(3)	7(6)	2(1)	4(3)	6(5)	2(1)	--	8(5)	--	9(7)	5(2)	--
		F	15(12)	12(8)	2(0)	5(4)	2(1)	2(1)	--	--	15(9)	--	1(0)	1
		Pooled Categories	I's Dispositions	Interpersonally Relevant Goals							Normal response to situation	Other		

Appendix C. Table 2 continued

Age	Target	Act	Nice Friendly	I likes T	Ingra- tiate to like I	T's Feelings	Avoid Conflict	T's qual- ities	Moral Imper- ative	Really Agreed	Other	No answer Missing
5th	LSP	OC	4(4)	6(5)	1(0)	--	1(1)	1(1)	--	1(0)	1(1)	--
		F	7(6)	4(1)	--	--	5(3)	--	2(2)	--	1(0)	--
	HSP	OC	1(1)	5(3)	--	5(3)	2(0)	3(2)	--	1(1)	1(1)	--
		F	4(1)	10(7)	1(0)	1(1)	--	2(2)	5(1)	--	--	--
	Ad.	OC	3(1)	--	4(3)	--	3(3)	1(1)	--	1(1)	1(1)	--
Ad.	LSP	F	7(6)	1(1)	3(3)	--	--	--	3(3)	--	1(0)	--
		OC	8(6)	11(7)	5(3)	4(3)	8(6)	2(2)	--	3(2)	2(2)	--
	HSP	F	18(13)	15(9)	5(2)	1(1)	5(3)	2(2)	10(6)	--	2(0)	--
		OC	3(3)	3(2)	2(1)	--	--	1(1)	--	--	3(3)	--
	Ad.	F	8(7)	5(2)	3(0)	--	2(0)	--	3(3)	--	--	--
Ad.	LSP	OC	--	8(6)	2(1)	4(3)	2(1)	2(1)	--	1(0)	--	--
		F	8(5)	8(4)	3(0)	--	--	4(3)	2(0)	--	1(0)	--
	HSP	OC	--	--	10(6)	2(2)	--	--	--	--	--	--
		F	4(3)	3(1)	7(3)	2(2)	--	1(0)	3(3)	--	--	--
	Tot.	OC	3(3)	11(8)	14(8)	6(5)	2(1)	3(2)	--	1(0)	3(3)	--
Pooled Categories		F	20(15)	16(7)	13(3)	2(2)	2(0)	4(3)	8(6)	--	1(0)	--
		Interpersonally Relevant Goals								Normal response to situation	Other	

Appendix C

Table 3. Why Did the Ingratiator Do What He/She Did? Age Group x
Target x Act x Motive. Pooled Categories.

Age	Target	Act	Dispositions		Interpersonal Goals		Normal Response to Situation		Other	
			UM	NUM	UM	NUM	UM	NUM	UM	NUM
1st	LSP	OC	1(0)	3(3)	5(4)	3(2)	5(5)	3(2)	3(3)	5(5)
		F	1(0)	8(5)	9(7)	1(0)	4(4)	6(6)	1(1)	1(1)
	HSP	OC	--	--	6(4)	2(2)	5(5)	5(5)	4(4)	5(5)
		F	6(2)	10(2)	8(7)	4(3)	2(2)	7(6)	1(1)	1(1)
	Ad.	OC	2(1)	2(1)	13(9)	7(6)	2(2)	5(5)	--	--
		F	4(1)	4(2)	11(7)	3(1)	5(4)	7(7)	--	2(2)
	Tot.	OC	3(1)	5(4)	24(17)	12(10)	12(11)	13(12)	7(7)	10(10)
		F	11(3)	22(9)	28(21)	8(4)	11(10)	20(19)	2(2)	4(4)
3rd	LSP	OC	--	5(4)	9(7)	5(3)	4(4)	4(3)	1(1)	4(2)
		F	5(1)	7(6)	10(7)	2(1)	4(4)	7(5)	--	--
	HSP	OC	1(0)	4(3)	11(10)	8(6)	2(1)	2(2)	1(1)	1(1)
		F	1(0)	8(8)	12(10)	1(1)	2(2)	5(2)	--	1(1)
	Ad.	OC	1(0)	2(2)	14(10)	12(8)	1(1)	3(2)	1(1)	1(0)
		F	3(1)	9(6)	12(10)	7(3)	1(1)	3(2)	--	1(1)
	Tot.	OC	2(0)	11(9)	34(27)	25(17)	7(6)	9(7)	3(3)	6(3)
		F	9(2)	24(20)	34(27)	10(5)	7(7)	15(9)	--	2(2)
5th	LSP	OC	1(0)	10(9)	12(12)	3(2)	--	1(0)	--	1(1)
		F	2(0)	11(7)	11(11)	5(3)	--	2(2)	1(1)	1(0)
	HSP	OC	3(1)	6(4)	13(10)	12(6)	1(1)	1(1)	--	1(1)
		F	7(0)	14(8)	12(12)	4(3)	--	5(1)	--	--
	Ad.	OC	1(0)	3(1)	18(12)	10(9)	--	1(1)	--	1(1)
		F	3(0)	8(7)	12(11)	3(2)	1(1)	3(3)	--	1(0)
	Tot.	OC	5(1)	19(14)	43(34)	25(17)	1(1)	3(2)	--	3(3)
		F	12(0)	33(22)	35(34)	12(8)	1(1)	10(6)	1(1)	2(0)
Ad.	LSP	OC	2(0)	6(5)	16(12)	6(4)	--	--	--	3(3)
		F	5(1)	13(9)	12(11)	5(0)	--	3(3)	--	--
	HSP	OC	1(0)	8(6)	14(12)	12(6)	--	1(0)	1(0)	--
		F	10(2)	16(9)	13(9)	7(3)	4(1)	2(0)	--	1(0)
	Ad.	OC	--	--	11(11)	16(12)	--	--	2(1)	--
		F	8(0)	7(4)	12(12)	10(5)	--	3(3)	1(0)	--
	Tot.	OC	3(0)	14(11)	41(35)	34(22)	--	1(0)	3(1)	3(3)
		F	23(3)	36(22)	37(32)	22(8)	4(1)	8(6)	1(0)	1(0)

BIOGRAPHICAL NOTE

Name: Jean Anne Matter

Date of Birth: October 25, 1950

Place of Birth: Grand Rapids, Michigan

Educational

History: Pomona College, 1968-1972, Claremont,
California. B.A. in psychology.
Duke University, 1972-1978, Durham,
North Carolina

Positions

Held: Research Project Coordinator, Community
Mental Health Attitudes Survey Project,
1977-78, Duke University, Durham, N. C.

Publications: Conger, J.; Costanzo, P. R.; & Matter,
J. A. Externality in obese and normal
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